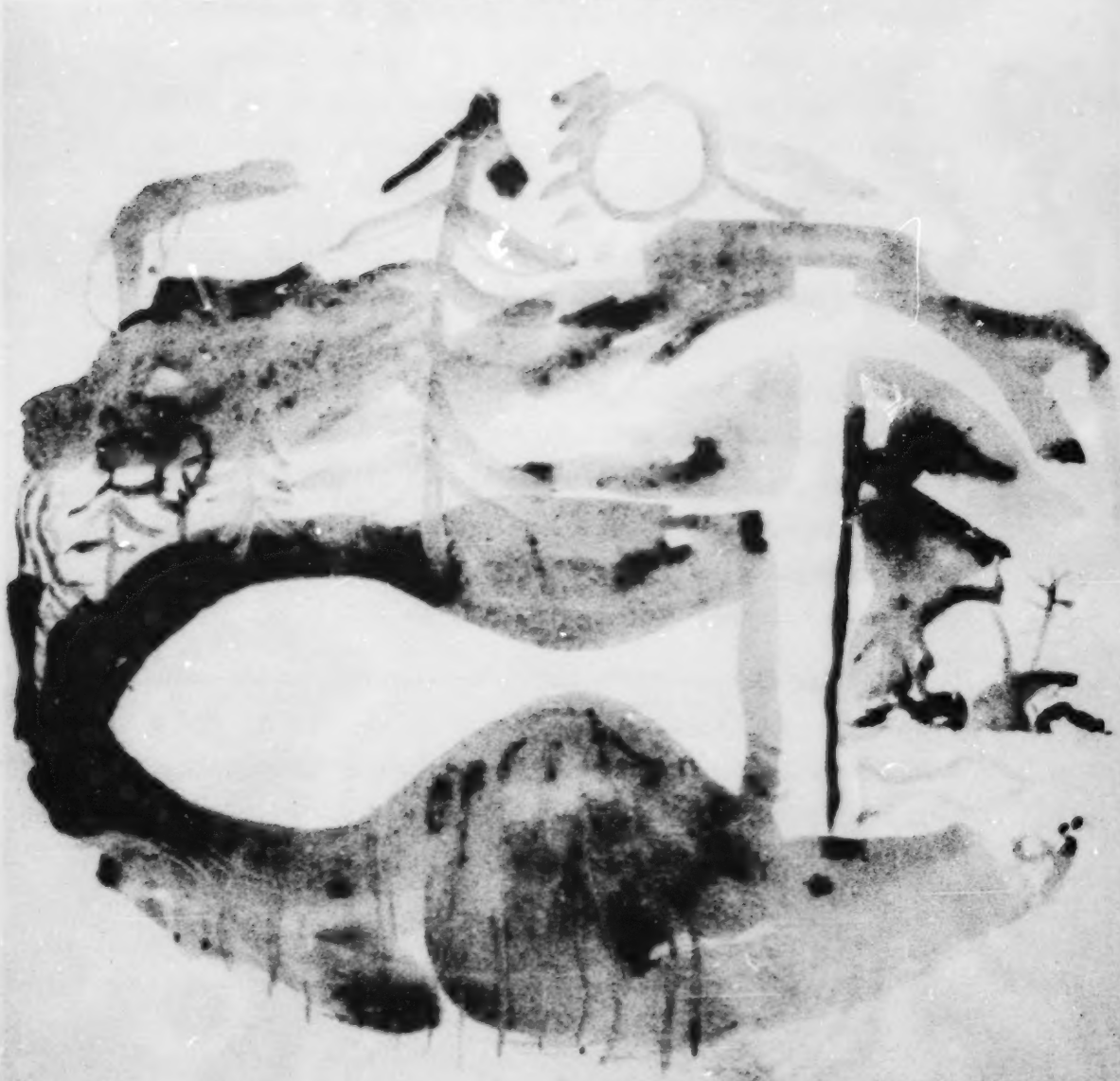
Manitoba Environmental Council Topics

2. Wildlife Designation of Manitoba Crown Lands: Problems and Conflicts.



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ANNOUNCEMENT

The Manitoba Environmental Council is a citizens advisory organization to the Manitoba Minister responsible for environmental management. It advises the Minister with regard to environmental problems and issues that impact on Manitoba or affect Manitobans.

The Council's purpose is also to issue environmental information relevant to Manitoba. Since its establishment in 1972, the Council has fulfilled this mandate by publishing both Annual Reports and Studies. It became apparent that the establishment of a third type of publication would allow additional pertinent material to be made available.

It is a pleasure, therefore, to announce the issuance of the Council's new publication series, "TOPICS". It has been designed to accommodate diverse materials providing they meet the "publishable" criteria. It will also serve as a vehicle for supportive data that previously would have been included in annual reports or remained unpublished. "TOPICS" will be issued in a typewritten format thereby eliminating typesetting costs and expediting publication. It will be distributed in the same manner as other Council publications.

This additional publication series makes it even more evident that the Manitoba Environmental Council is playing a significant role in the education of Manitobans in the area of our priceless environment.

BILL KENNEDY,
Chairman.

WILDLIFE DESIGNATION OF MANITOBA CROWN LANDS: PROBLEMS AND CONFLICTS

ANNA E. POLONYI

MANITOBA ENVIRONMENTAL COUNCIL

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SUMMARY

The public lands of Manitoba, known as Crown lands, are committed to various uses such as agriculture, forestry, mining, recreation and wildlife. Specific commitments for wildlife purposes include the establishment of Wildlife Management Areas, Public Shooting Grounds and various types of Refuges. The three major types of land designations have arisen in the past century in answer to the needs of the times.

The power to administer Crown Lands was given to the Province by the Natural Resources Transfer Act in 1930. The Wildlife Act of 1980 is the most recent major piece of legislation which deals with wildlife.

Public Shooting Grounds were established in the 1920's and 30's. At this time the Government felt that there was a need to set aside certain lands to provide hunting for the public. The attitude then was that wildlife was an abundant and infinite resource. We know now that this is not true.

The various Refuges were established about a decade or two after the Public Shooting Grounds. Many were established near areas where hunting was excessive. Although the refuges prohibited the use of firearms to protect the wildlife, often this method was also used to ensure that migratory birds gather and stay through the hunting season and thus be available to the hunter. Another common purpose was to prohibit firearms in areas near campgrounds and beaches, not out of concern for the wildlife of the area, but rather to satisfy human use. Since agricultural activities do not conflict with the purpose of the refuge, many areas containing good waterfowl habitat are in danger of being destroyed due to haying and grazing that occurs. In general the major refuges which are actually serving a useful purpose are the Game Bird Refuges. Many of the Wildlife and Fur Bearing Animal Refuges are of questionable value.

The final type of designation, the Wildlife Management Area, was first established in the early 1960's. This designation reflected a new philosophy in management of wildlife and their habitat. It is the most efficient type of designation for Wildlife purposes in the Province today. It allows for close control of <u>all</u> activities including agriculture and hunting. In this way the wildlife habitat is protected.

In view of the above information, the following recommendations are suggested:

1. The changing situation in regard to wildlife and Crown Lands should be examined to assess whether legislation needs to be changed to meet the demands of today.

2. The status of the Public Shooting Ground and its use should be reviewed toward a possible revision of the Natural Resource Transfer Act.

3. The value of the Wildlife and Fur Bearing Animal Refuges should be considered. Perhaps they would serve better as Wildlife Management Areas or by dropping their status as a Refuge altogether.

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WILDLIFE DESIGNATION OF MANITOBA CROWN LANDS: PROBLEMS AND CONFLICTS [1]

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CHAPTER 1
INTRODUCTION

An ever increasing awareness of the need to protect the natural resource known as wildlife has prompted an interest in land acquisition, habitat management and area use by the Province of Manitoba. Does the Province have lands set aside for wildlife use? If so, how much; and is it being utilized for its intended purposes? These are questions that must be asked and answered. Otherwise we run the risk that the wildlife and its habitat in the Province may disappear before future generations will even know they existed.

Public lands which are administered by the Province of Manitoba are known as Crown Lands (see Table 1 for the breakdown of Lands in Manitoba). The Province of Manitoba gained jurisdiction over these lands in 1930 from the Dominion of Canada. At one time these lands were granted to settlers to develop the wilderness. As the population grew and industry thrived, the need to promote settlement of the land was no longer there. In place of the free land grant the Provincial Government disposes of Crown Lands by selling or leasing them.

The policy of the Progressive Conservative Government in the 1970's was to sell off large acreages of Crown Land to best meet the needs of the Province. The New Democratic Party, elected in 1981, decided on a policy of allocating some Crown Lands to be sold to the public.

The focus of this report is to investigate the use of Crown Lands for the protection of Wildlife. The various commitments of Crown Lands, their designations and the legislation affecting them will be discussed. An "in depth" look will be taken in regard to the classification, acquisition and disposition of Crown Lands designated for wildlife purposes. Various problems due to human activities and the conflicts which occur on these lands will also be reviewed.

This report will inform the reader about the use of Crown Lands for wildlife purposes, for only through such information can we Manitobans become aware of the uses and abuses of our heritage.

Table 1 Summary of Land Area in Manitoba

Classification	Area (sq. ki.)
Privately-owned	138,000 (34.1 million acres)
Indian Reserves and Federal Parks	8,090
Provincial Crown Land	402,200 (99.4 million acres)
Provincial Parks	10,260
Riding Mountain National Park	2,978
International Peace Gardens	587
TOTAL	562,115

Source: Manitoba Department of Natural Resources. Manitoba Wildlife Fact Book, 1980.

CHAPTER 2
COMMITMENTS OF CROWN LANDS TO SPECIFIC USES

Introduction

The Crown Lands of Manitoba are committed to a variety of land uses, the major ones of which are agriculture, forestry, mining, recreation and wildlife. Crown Lands may be committed to these uses through leases, permits, reservations, contractural agreements and Orders-in-Council. An Order-in-Council is the legislation used for giving the force of law to the administrative regulations and provisions drawn up by Government Departments (Burke, 1976). Lands under Orders-in-Council include: Parks, Provincial Forests, Wildlife Management Areas, Public Shooting Grounds, Refuges and Community Pastures. Lands held by Order-in-Council may also be privately owned or under municipal or Local Government District control (Barto and Vogel, 1978).

Land use and its management are dictated by physical features such as flooding, erosion, and climatic factors. Consideration of the inhabitants of the area must also be taken into account. All aspects must be reviewed so that careful management may result in optimal utilization without exploitation of Manitoba's natural resources.

Types of Commitments

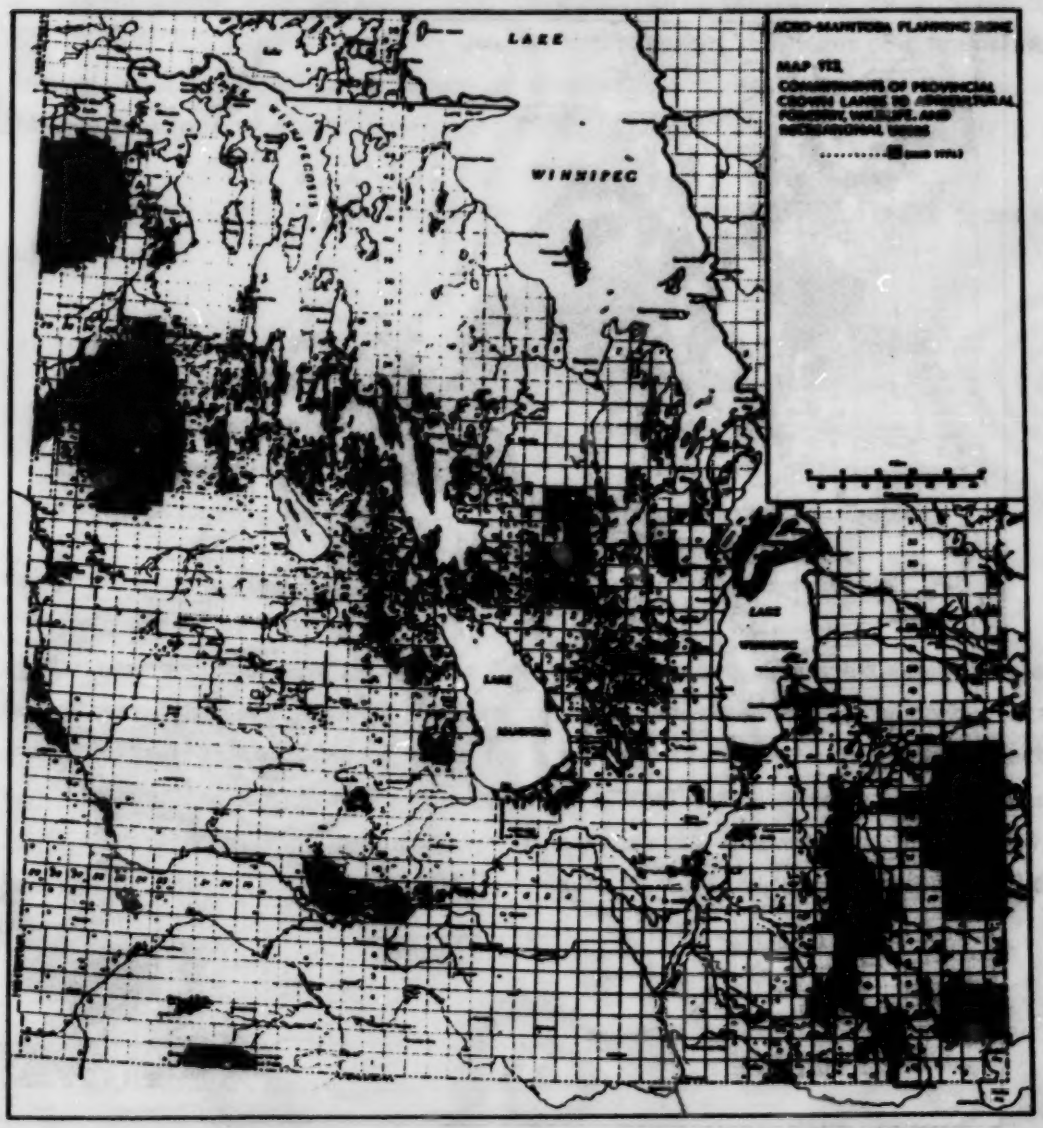
The southern region of Manitoba is known as Agro-Manitoba and contains approximately 14.2 million acres of Crown Land out of a total of 43.7 million acres. The majority of the Crown Lands are located in the northern and eastern portions of the region. The various uses to which many of these lands are committed are summarized in Table 2 with the location of these areas identified in Figure 1. The Crown Lands not committed to any use in Agro-Manitoba are shown in Figure 2.

Table 2 Estimated Land Committed to Major Uses in Agro-Manitoba (1977)

Use	Percent of Total Land Area in Agro-Manitoba
Urban	0.4
Transportation	0.5
Others	0.9
Wildlife (WMA)	1.6
National Parks	2.0
Provincial Parks	3.6
Forestry	8.2
Unspecified Lands	9.9
Unallocated Crown Land	19.4
Agriculture	53.4
Total	100.0

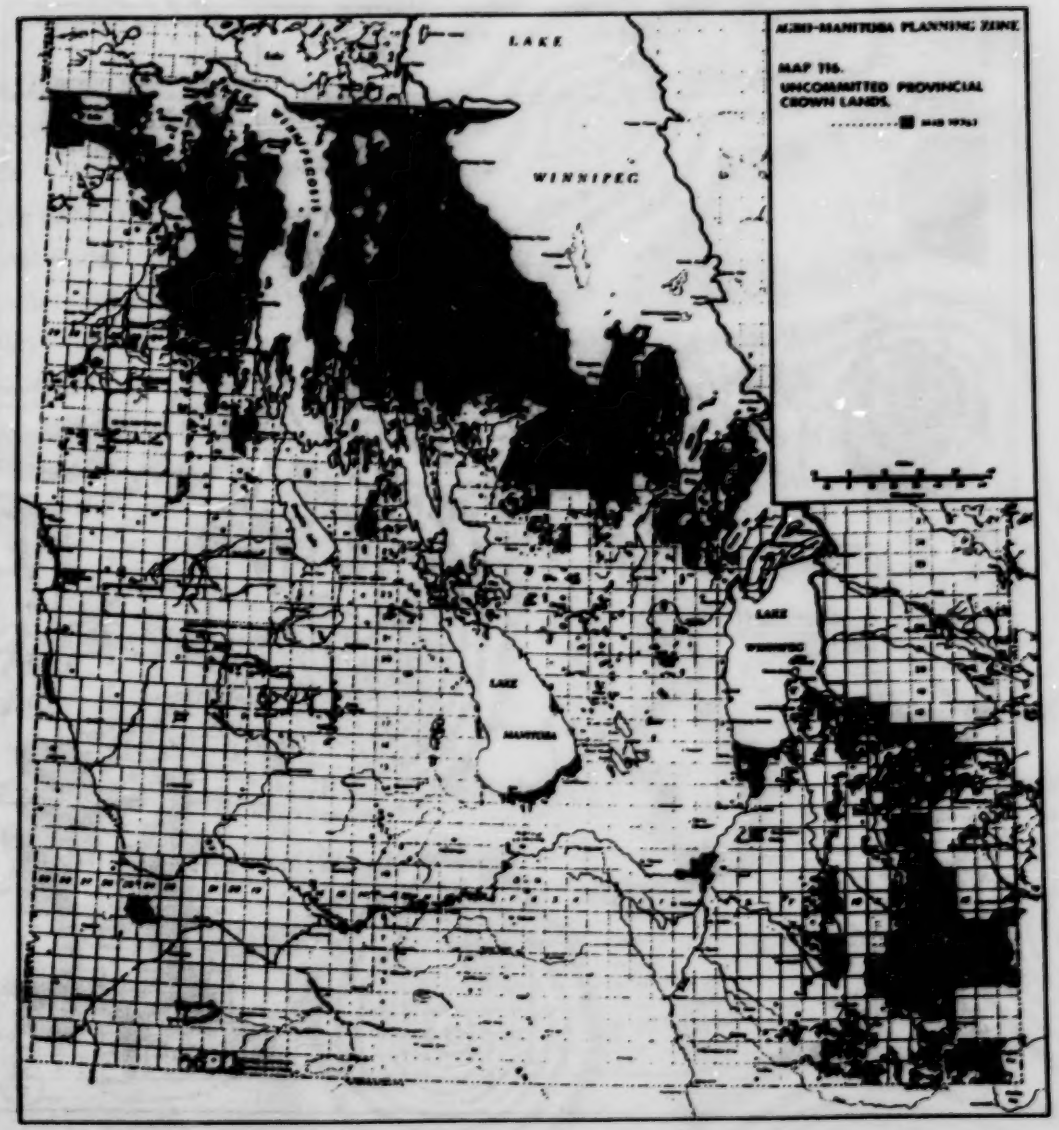
Source: Barta & Vogel, 1978.

Figure 1. Crown Lands Committed to Agriculture, Forestry, Wildlife, and Recreational Uses in Manitoba



Source: Barto & Vogel, 1978, p 262. (Reprinted with permission)

Figure 2. Uncommitted Crown Lands in Manitoba



Source: Barto & Vogel, 1978, p 265. (Reprinted with permission)

Lands Committed to Agricultural Use

Crown Lands may be committed to agricultural utilization by agricultural leasing. A lease is a legal contract for the rental of Crown Land, lakes or streams. An agricultural lease provides for a system of allocation and regulation over the use of agricultural land for such purposes as haying and grazing (Province of Manitoba, 1975).

The Crown Lands Policy and Operations Manual (1975) lists six major types of agricultural leases:

1. Cash Rental Leases last	1 - 5 years & are renewable
2. Casual Grazing Permits last	1 year and are renewable
3. Farm Grazing Leases last	5 years and are renewable
4. Hay Permits last	1 year and are not renewable
5. Ranch Grazing Leases last	10 years and are renewable (no longer issued)
6. Renewable Hay Permits last	1 year and are renewable

Crown Land may also be used as Community Pasture, and is established by an Order-in-Council. A Community Pasture provides an arrangement whereby local farmers may leave their cattle to graze for a minimal fee. The Municipality collects the profit, but the operation is the responsibility of the Federal Prairie Farm Rehabilitation Administration Program, although it is Provincial Crown Land (Ellis, 1969). There are 530.7 sq. ki. (204.9 sq. mi.) of Community Pasture lands in Manitoba (Wildlife Fact Book, 1980).

Lands Committed to Forestry Use

Crown Lands may be committed to forestry by any of the following methods (Barto and Vogel, 1978). Permits are issued to allow for small allocations of timber, while timber sales allow for larger allocations. Contracts are issued for major voluntary agreements and special allocations. A temporary or permanent reservation may also be put on the land. This involves entry in the Township Register thereby indicating an interest in a specific parcel of land. Permanent disposition of Crown Land requires that an Order-in-Council approve entry of a permanent reservation into the Township Register.

The largest allocation of lands to timber involves the establishment of Provincial Forests. Once again, an Order-in-Council is required. Provincial Forests come under the supervision of the Forestry Branch. Some of the activities it manages are tree seed production, forest tree nurseries, tree planting, silliviculture, timber operations, pulpwood production, fire protection and suppression. There are 14,023 sq. ki. (5,415 sq. mi.) of Provincial Forest Reserves (Ellis, 1969).

Lands Committed to Recreational Use

Crown Lands in Manitoba are devoted, for the most part, to recreation in the form of Provincial Parks and leased for the building of summer homes. There are 12 Provincial Natural Parks, 2 Heritage Parks, 44 Recreational Parks, as well as 102 wayside and 4 Special Use Parks. In all, 3,960 sq. mi. (10,250 sq. ki.) are devoted to Provincial Parks.

Manitoba Regulation 199 (1974), under the Provincial Park Lands Act of 1974 offers the following description of the types of Provincial Park Lands:

(a) Provincial Natural Parks: areas which possess exceptional value or quality in illustrating or interpreting the natural heritage of the Province;

(b) Provincial Wilderness Parks: areas which, through their management and use, will be perpetuated in a primitive state, free of development, and accessible only by non-mechanized means;

(c) Provincial Recreation Parks: Spacious areas close to concentrations of people, the natural attributes of which make it possible to serve large numbers of recreational users without degradation of the basic natural resources of the area;

(d) Provincial Recreation Travelways: lineal areas illustrating or interpreting the natural travel routes of our Province, including Provincial Recreational Travelways, Parkways and Waterways;

(e) Provincial Heritage Parks: areas established to preserve and interpret key elements of Manitoba's natural and human history;

(f) Special Use Parks: small land areas developed for express recreational purposes, including;

i) Wayside Parks, for highway roadside picnic stops;

ii) Provincial Campgrounds, for overnight use along travel routes or adjacent to resource areas such as lakes and forest lands;

iii) Marine Parks, for service to boating areas which may include marinas, docks and camping;

iv) Access sites, for boat launching or trailhead parking;

v) Information centres, manned and unmanned, for the purpose of giving information and direction to vacationers and tourists; and

vi) Seasonal dwelling areas, to provide developments for cottage subdivisions, group camps, cabins and trailer villages for recreational purposes. (p. 499)

A Provincial Park or Recreation Area is established by Order-in-Council or set aside by Permanent Reserve.

Lands Committed to Wildlife Use

Wildlife is considered to be a natural resource, and it is important that management programs, land allocation or land use regulations exist to protect this resource. This need is met by the establishment of Wildlife Management Areas, Public Shooting Grounds, and Wildlife, Gamebird and Goose Refuges (Manitoba Department of Natural Resources, 1978). Land may also be held by temporary or permanent reserve for Wildlife Management Areas, according to the Wildlife Act (1981). Crown Lands may also be designated as Registered Trapline District or Special Trapping Area and are Consumptive in use. Table 3 shows the area of land committed to Wildlife in Agro-Manitoba.

Table 3 Lands Committed to Wildlife Use in Agro-Manitoba

Use	Area (acres)
Wildlife Management Areas	559,902
Public Shooting Grounds	123,262
Refuges	332,394
Total Land Committed	5,883,556
Total Land Uncommitted	8,351,304
Total Area Committed to Wildlife	1,015,558
Total Area of Land in Agro-Man.	43,940,250
Area of Crown Land in Agro-Man.	14,234,943

Source: Barto & Vogel, 1978.

Wildlife Management Areas and Public Shooting Grounds are always located on Crown Lands. They may exist on private land as well as on Crown Lands committed to other uses. Only 14% of Refuges are on Crown Lands that are allocated solely for that purpose (Barto and Vogel, 1978).

There are also substantial amounts of Crown Lands that are allocated to different uses, such as National and Provincial Parks and Forests which affect wildlife management and use. Other areas which are designated on lands that do not belong to the Province are: Animal Control Area, Endangered Species Area, Managed Hunting Area and Waterfowl Control Area (Wildlife Act, 1980).

Wildlife is a resource which has both consumptive and non-consumptive uses. The consumptive uses are: recreational and domestic hunting, commercial trapping, reptile and amphibian collecting and collecting for scientific and educational purposes. Non-consumptive uses are for viewing, nature education, art and photography.

Wildlife also plays an indicator role to gauge environmental quality and change. Wildlife is also important as a biological control for suppressing over-population of species and maintaining an equilibrium or stable ecosystem. This also prevents the distribution of other resources. Finally, Wildlife provides a genetic reserve for breeders of domestic species.

Manitobans reap many benefits from healthy wildlife populations and habitats, such as income, jobs, economic stimulation, wild food, maintenance of life-style for native people, recreation, quality environment, balanced ecosystems, breeding stocks, scientific, educatonal and artistic resources. Since wildlife is a by-product of all land uses, its management requires a co-operative effort by all of the agencies responsible for the management of the different land resources. This is necessary in order to maintain the maximum benefit from our land and environment.

Other Commitments

Crown Lands are set aside for other commitments, such as the protection or development of water power or water power reserves. Land is also reserved along the boundaries between Manitoba and the United States, as well as Manitoba and the Northwest Territories. Lands along navigable waters are also reserved so as to permit public right of landing and mooring boats, as well as the islands in a river and a bed of natural bodies of water below the high watermark. There are also Archeological Sites, Ecological Reserves and International Biological Program Sites, as well as Water and Wind Erosion Zones (Ellis, 1969). General Permits and wild rice leases are also issued by the Crown Land Branch.

There are unsurveyed lands in the sub-arctic and inaccessable forested areas which contain extensive natural wildlife areas. Undisposed Crown or School Lands may be considered for disposition by sale, unless the land is reserved or needed for public services or development of natural resources (Ellis, 1969).

Specific Commitments to Wildlife

1. Introduction

As previously stated, Crown Lands are mainly devoted to wildlife uses through the establishment of Wildlife Management Areas, Public Shooting Grounds and Refuges. Game Preserves and Bird Sanctuaries functioned to serve Wildlife in the first half of the Nineteenth century (Game and Fisheries Act, 1930). Public Shooting Grounds are an innovation from the 1920's when they were very popular; the idea was probably imported from the United States. Wildlife Management Areas and Refuges are a relatively new concept which were put into use in the early sixties, replacing the Game Preserves and Bird Sanctuaries. The Wildlife Management Areas has an advantage over its predecessor in that it allows control over the habitat as well as the animals (Larche, Personal Communication).

A recent development is the establishment by Order-in-Council of the Churchill Special Conservation Area. This area does not hold the status of any of the above areas; its sole purpose is to protect the nesting sites of the Ross's Gull via control over its habitat (Larche, Personal Communication). Churchill is the only site in North America where this bird may be found, although it is quite abundant in the Soviet Union.

Control of wildlife habitat is important and should be closely monitored, since lands supporting wildlife are rapidly being encroached upon due to the increasing development of other resources such as agricultural production. This may prove a threat to wildlife in that the habitat may be reduced or destroyed.

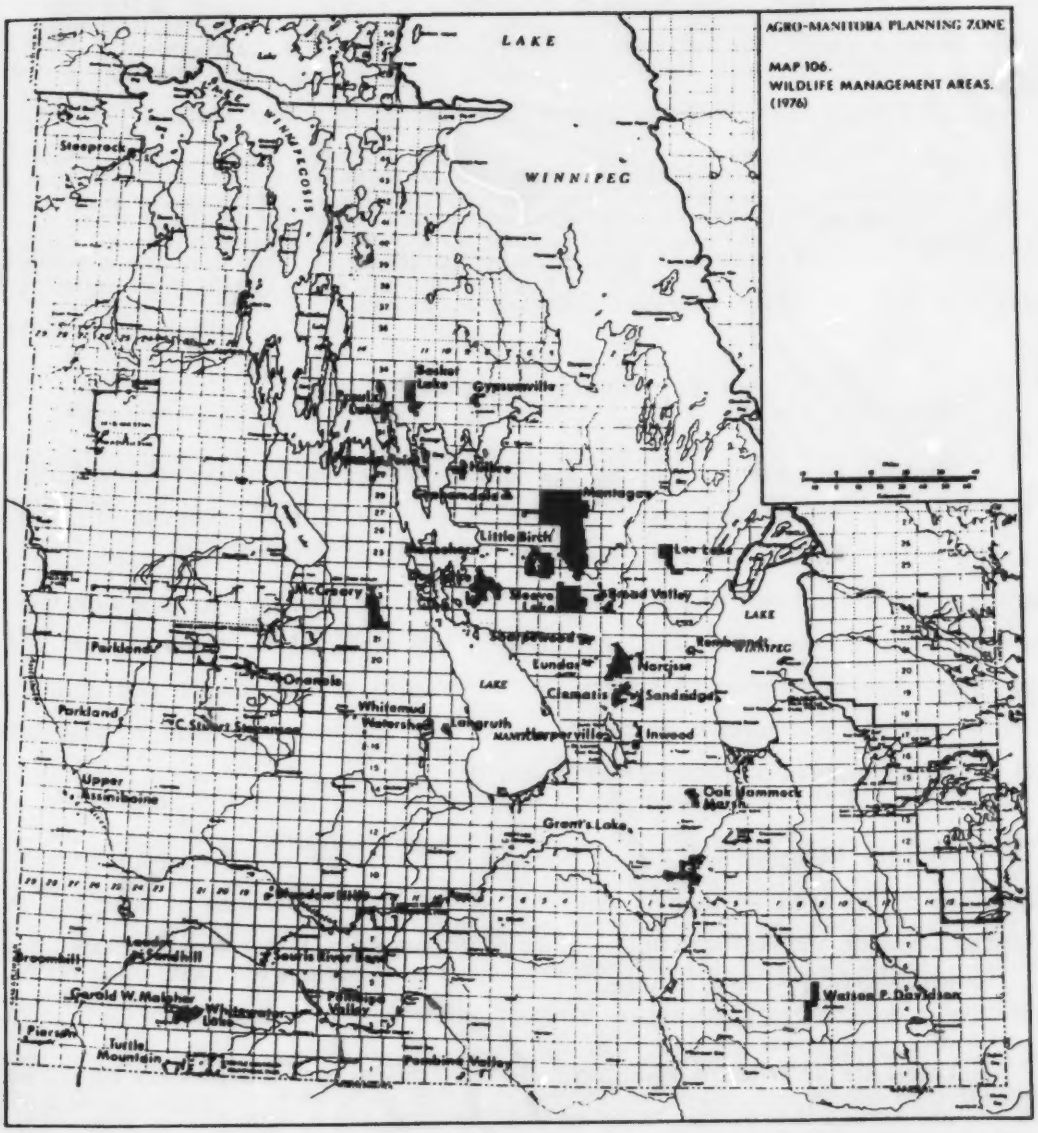
2. Wildlife Management Areas

Wildlife Management Areas are designated as such under the Wildlife Act (1980), for the management and conservation with the primary purpose of preserving valuable wildlife habitat (Westhorpe, 1973). The first Wildlife Management Area in Manitoba was established in 1961 and is a fairly recent approach to deal with the concerns of wildlife resources. This new concept has replaced the previous one of game preserves. The underlying philosophy is "to provide an abundance and diversity of wildlife habitats and species in perpetuity of the use and enjoyment of Manitobans" (Manitoba Department of Natural Resources, 1978).

Wildlife Management Areas provide a means by which careful control and regulation of an area of land is possible. It has the advantages of both the Public Shooting Grounds and Refuges but is more effective since it not only regulates hunting but also other activities that may occur.

There are 47 Wildlife Management Areas, covering approximately 10,620 sq. mi. (6.8 million acres), (Manitoba Department of Natural Resources, 1978). The total land area of the Province is 252,000 sq. mi.. Therefore Wildlife Management Areas make up 4.3% of the total land area. The majority of Wildlife Management Areas are found south of the 53rd parallel in Agro Manitoba (see Figure 3). The northern half of the Province contains 5 Wildlife Management Areas, covering 9,750 square miles, making up the bulk of that region. There are 23 Wildlife Management Areas (725 sq. mi.) concent-

Figure 3. Wildlife Management Areas in Manitoba



Source: Barto & Vogel, 1978, p 253. (Reprinted with permission)

rated in the Interlake. The southwest region holds 18 Wildlife Management Areas (127 sq. mi). while there is only one in the Southeast which covers an area of 22 square miles (Manitoba Department of Natural Resources, 1978). Table 4 lists the acreage of Crown Lands committed to the individual Wildlife Management Areas.

Depending on the purpose, a Wildlife Management Area may be as small as a quarter section in size but still function satisfactorily as an isolated management unit. In some instances (e.g. when an area is to be used for over-wintering big game species such as white-tailed deer), large tracts of land would be more suitable (Manitoba Department of Natural Resources, 1978).

Site selection is based primarily on the capacity of the land to sustain habitat and wildlife. Evaluation is based on the history of the site, soil type, topography or existing vegetation. Land with low agricultural capability or susceptibility to erosion may be put to better use producing wildlife and at the same time solving land use problems.

The management of the area is affected by its size, distance from any population centres and the capability to sustain wildlife. Habitat restoration or improvement may be required if natural conditions are severely altered by such land uses as agriculture, forestry or mining. In low wetland areas, periodic water level manipulation may be necessary to maintain marsh vegetation. Other works that are required may include tree and shrub planting, cover crop planting, controlled burning and the construction of dams, dykes and ditches (Manitoba Department of Natural Resources, 1978).

Table 4 Crown Lands Committed to Wildlife Management Areas

Areas	Area (sq. mi.)
Southwest Region:	
Broomhill	1.25
Souris River Bend	8.00
Lauder Sandhills	11.63
Whitewater Lake	34.60
C. Stuart Stevenson	0.50
Bernice	0.25
Pembina Valley	7.38
Tiger Hills	0.74
Onanole	1.75
Gerald W. Malaher	0.23
Pierson	1.38
Brandon Hills	2.67
Parkland	2.75
Turtle Mountain	0.50
Upper Assiniboine	3.86
Whitemud Watershed	1.25
Red River Region:	
Harperville	2.50
Inwood	10.50
Watson P. Davidson	22.50
Oak Hammock	13.22
Grant's Lake	1.43
St. Malo	0.67
Interlake Region:	9.03
Peonan Point	13.62
Hilbre	88.00
Little Birch	57.75

Sleeve Lake	14.25
Broad Valley	26.88
Lee Lake	8.75
Sharpwood	4.25
Lundar	53.18
Narcisse	26.35
Clematis	7.25
Sandridge	125.00
Dog Lake	5.25
Rembrandt	0.75
Moosehorn	5.75
Grahamdale	
North Interlake Region:	
Gypsumville	9.51
Mantagao Lake	194.28
Basket Lake	27.75
Proulx Lake	12.75
West Lake Region:	
Langruth	6.88
McCreary	40.75
Porcupine Mountain Region:	
Steeprock	7.30
Northern Region:	
Tom Lamb	841.20
Saskatam	373.00
Cape Tatnam	2,016.00
Cape Churchill	6,500.00
Total	10,610.00

Source: Manitoba Department of Natural Resources, Manitoba Wildlife Fact Books, 1980.

Since wildlife is the principal concern of Wildlife Management Areas, other land uses must be considered secondary and should be prevented if they pose a threat. Public activities include hunting, although there may be restrictions on access, hunting methods or the animals that may be hunted (Westhorpe, 1973). Haying or grazing leases are allowed on some Wildlife Management Areas. Viewing, nature interpretation, environmental education, scientific research, photography, cross-country skiing, hiking and other related activities may also occur (Manitoba Department of Natural Resources, 1978). Conflicting activities should be carefully regulated with the purpose and intent of the Wildlife Management Area in mind.

Many of the Wildlife Management Areas have been established to meet a specific need or purpose in the region with current uses varying from area to area (Manitoba Department of Natural Resources, Manitoba Wildlife Fact Book, 1980).

3. Public Shooting Grounds

Public Shooting Grounds were first established in the second decade of this century by the Federal Government which:

> ...recognized in the interests of sportsmanship and recreation that areas offering shooting facilities are now limited and the present is an opportune time for taking steps to set apart and reserve suitable areas which shall be freely available to the public...
> (PC-348, 1925, P.1)

The primary purpose then is to guarantee hunting and recreation opportunities to the public with the secondary purpose being the encouragement of game production. There are no restrictions as to the activities which may occur on these lands unless there is a conflict with the main intent of allowing public hunting. Public Shooting Grounds are always open to the public and casual dwellings such as cabins or hunting blinds may be erected by permit. Haying and grazing are also allowed under permit (Westhorpe, 1973).

Public Shooting Grounds do not protect the wildlife in the area. Activities are allowed to occur which may be damaging to the wildlife and their habitat. This is not considered as a conflict in uses unless hunting by the public is in some way hindered.

There are 8 Public Shooting Grounds all within Agro-Manitoba covering an area of 198 square miles. Table 5 indicates the acreage of each Public Shooting Ground and Figure 4 shows their locations.

4. Refuges

A Refuge is an area on which it is intended to directly protect the animals present. Refuges may exist wholly or partly on private land and consent by the land-owner may be withdrawn at any time. Often, the refuge is established at the land-owner's request (Westhorpe, 1973).

There are basically 5 different types of Refuges, each with their own specific set of regulations (Manitoba Regulation 44/82). A Wildlife Refuge is a designated area where the hunting of wildlife is prohibited and therefore all animals are protected. It is illegal to hunt any animal or bird or to discharge or carry or have in possession a loaded firearm. It is illegal to hunt game birds in a Game Bird Refuge, although the hunting of big game and the trapping of furbearing animals is permissible. No person is allowed to kill or be in possession of any goose in a Goose Refuge. The Special Canada Goose Refuge exists to protect only Canada Geese. Last of all, there is the Furbearing Animal Refuge in which no person may hunt or trap furbearing animals.

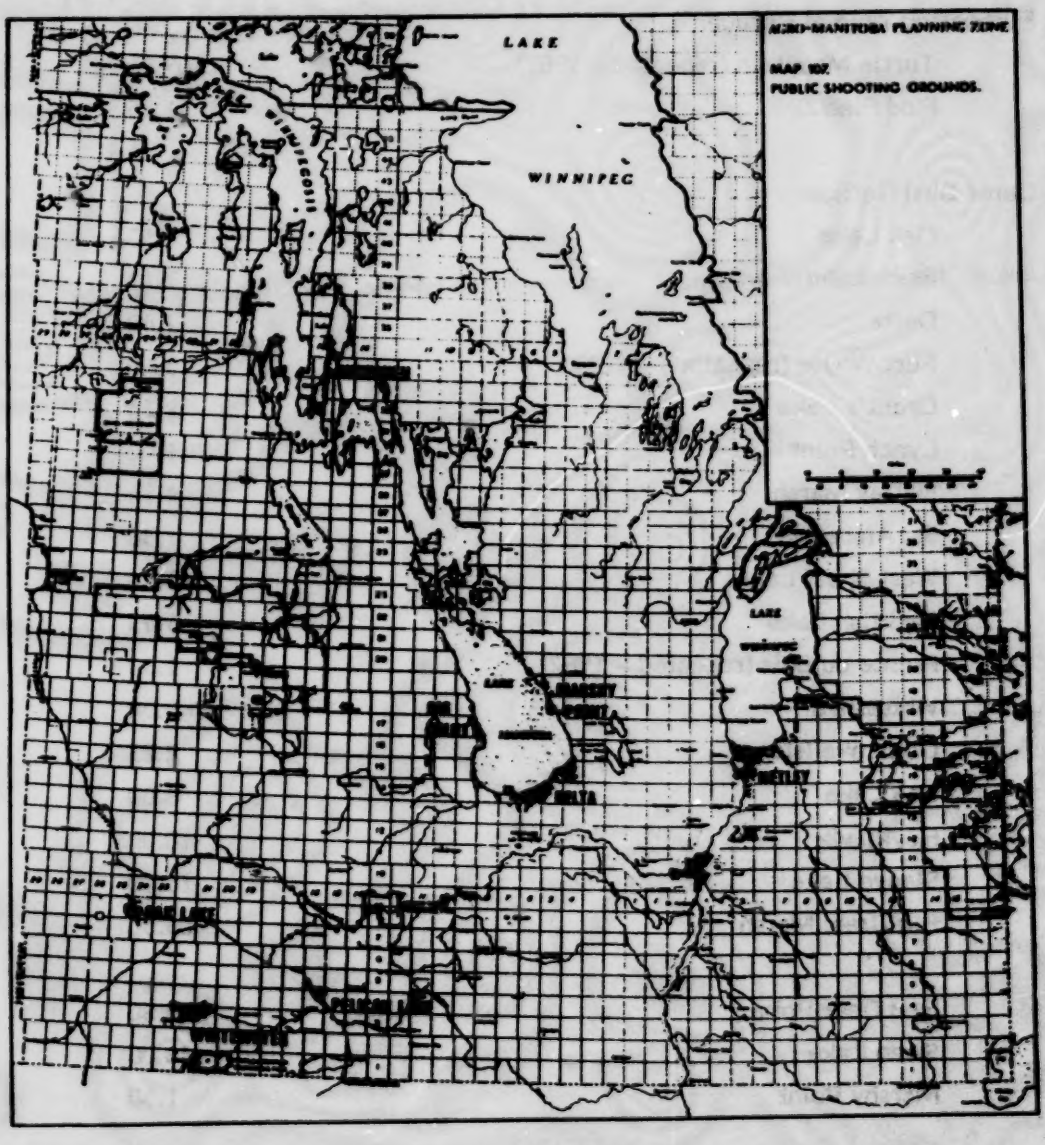
A Refuge only provides control over hunting regulations; there is no control over the land. Wildlife may be indirectly destroyed through habitat destruction. There is no restriction on different land uses such as agriculture, forestry or mining. Many Refuges do not really protect the wildlife but were established to protect the human inhabitants in the area. Examples of this are areas near urban centres such as Winnipeg or recreational areas such as St. Ambroise Beach. A Refuge, therefore, does not always serve wildlife. Table 6 indicates the acreage of each refuge, and Figure 5 shows their locations.

Table 5 Crown Lands Committed to Public Shooting Grounds

Public Shooting Grounds	Area (sq. mi.)
Southwest Region:	
Oak Lake	4.93
Pelican Lake	9.61
Whitewater Lake	6.53
Red River Region:	
Delta	30.00
Marshy Point	9.28
Netley	68.97
West Lake Region:	
Big Point	13.11
Waterhen	55.78
Total	198.20

Source: Manitoba Department of Natural Resources, Manitoba Wildlife Fact Book, 1980.

Figure 4. Public Shooting Grounds in Manitoba



Source: Barto & Vogel, 1978, p 254. (Reprinted with permission)

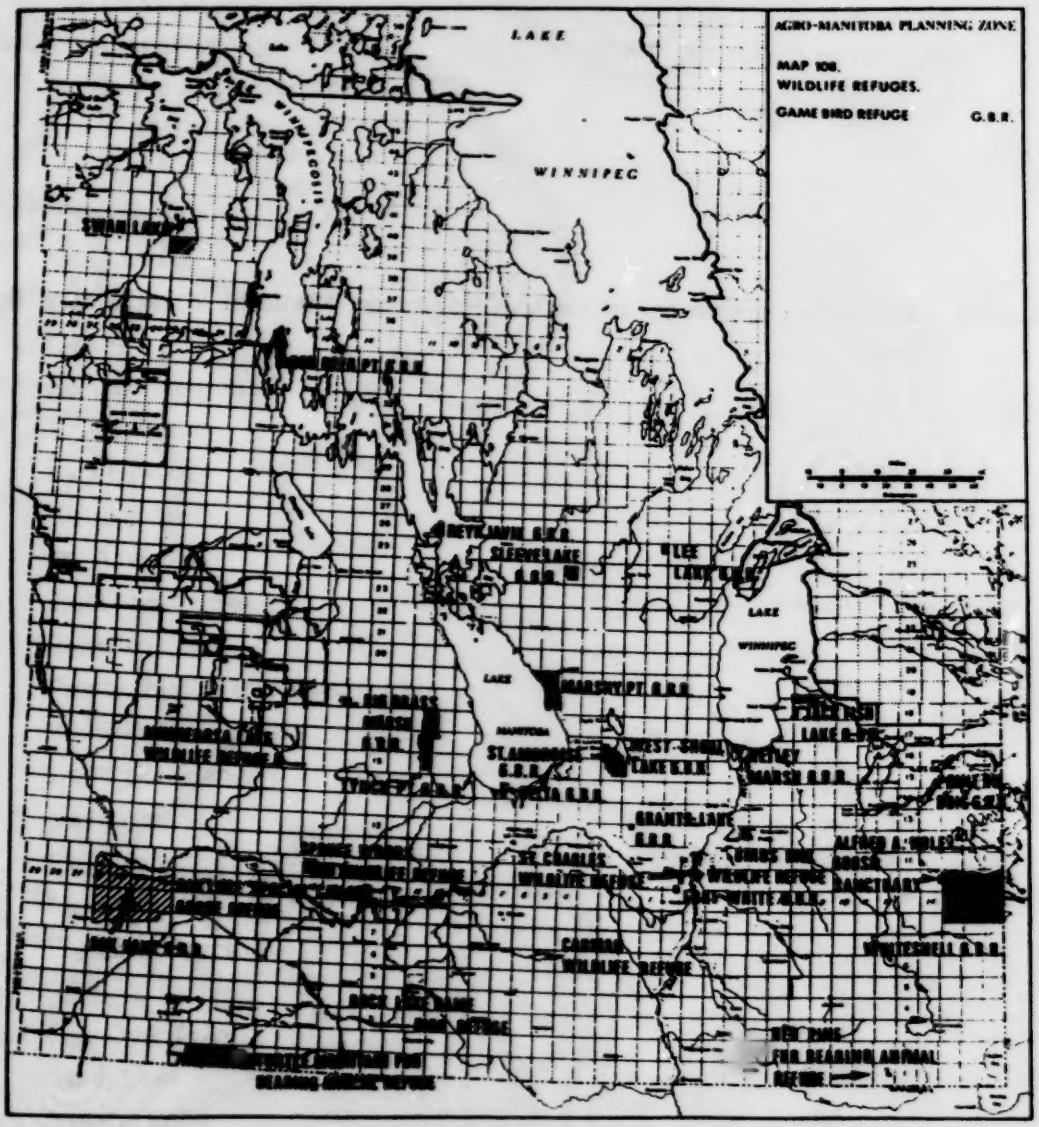
Table 6 Lands Committed to Refuges

Refuge	Area (sq. mi.)
Furbearing Animal Refuge:	
Turtle Mountain (repealed - 1982)	109.25
Red Pine	1.75
Game Bird Refuge:	
Oak Lake	9.53
Rock Lake	7.11
Delta	7.40
Fort Whyte (repealed - 1982)	3.60
Grant's Lake	2.25
Lynch Point	1.00
Netley Marsh	4.14
St. Ambroise	1.38
West Shoal Lake	43.00
Jackfish Lake	5.75
Pointe du Bois (repealed - 1982)	1.50
Whiteshell	249.00
Dog Lake Islands	2.25
Lee Lake	6.00
Reykjavik	10.00
Sleeve Lake	15.00
Big Grass Marsh	65.50
Red Deer Point	34.80
Swan Lake	36.00
Marshy Point	1.50
Goose Refuge:	
Oak Lake	92.50
Marshy Point	58.34
Alfred A. Hole Sanctuary	4.00

Wildlife Refuge:	
Minnedosa Lake	7.25
Spruce Woods	33.45
Carman	4.91
Birds Hill	2.52
St. Charles (repealed - 1982)	19.34
Total	**840.00**

Source: Manitoba Department of Natural Resources, Manitoba Wildlife Fact Books, 1980.

Figure 5. Wildlife and Game Bird Refuges in Manitoba



Source: Barto & Vogel, 1978, p 255. (Reprinted with permission)

Summary

The Crown Lands of Manitoba are committed to various uses such as agriculture, forestry, mining, recreation, wildlife and other miscellaneous commitments. Since conflicts may arise when an area of land is committed to more than one use and since the utilization of a natural resource often has a direct affect upon another resource, management by the various departmental branches should be a cooperative effort.

Crown Lands committed to Wildlife use are designated as Wildlife Management Areas, Public Shooting Grounds or Refuges. Public Shooting Grounds offer consumptive utilization of wildlife to the public. Refuges are intended to protect wildlife but often result in destroying them indirectly and may be more for human benefit. The Wildlife Management Areas are the most effective approach that exists in Manitoba for the control, management and protection of wildlife.

CHAPTER 3
LEGISLATION AFFECTING WILDLIFE ON CROWN LANDS IN MANITOBA

In The Beginning ...

The Province of Manitoba was established in 1870 and was granted its authority by the Manitoba Act (1870). Unlike the first four provinces of Ontario, Quebec, Nova Scotia and New Brunswick, which upon joining the Dominion of Canada were given authority over their own provincial Crown Lands, this was not the case for Manitoba. Rather, The Manitoba Act stated:

> All ungranted or waste lands in the Province shall be, from and after the date of the said transfer vested in the Crown, and administered by the Government of Canada for the purposes of the Dominion, subject to, and except and so far as the same may be affected by, the conditions and stipulations contained in the agreement for the surrender of Rupert's Land by the Hudson's Bay Company to Her Majesty. (The Manitoba Act, 1870 c. 3, s. 30, p. 25).

The Act also authorized the Governor General in Council to settle and appoint Grants of Land from the Crown. This action would have the same force and effect as the Act itself, upon publication of the pertaining Order-in-Council in the Canada Gazette.

Prior to 1870 the individual eastern provinces assumed responsibility for their own natural resources, one of which was wildlife (Foster, 1978). Any problems related to this resource in Manitoba, were the responsibility of Ottawa. The Manitoba Act of 1870 did not alter this.

No interest was shown in wildlife conservation policies by the Dominion government at the time. The British North America Act of 1867 did not even make mention of wildlife (Foster, 1978), except to define the Canadian Government's jurisdiction over Inland coasts and Fisheries. The status of wildlife as a natural resource was simply assumed.

The establishment of natural parks at the turn of the 19th century were not for wildlife sanctuaries, as they are acknowledged today, but rather, viewed as a commercial asset by the government. As well as national parks, the Dominion Reserves and Parks Act of 1911, set aside dominion lands in the western provinces as Dominion Forest Reserves (Foster, 1978). The Act also declared these reserves as game preserves which allowed the protection of animals, birds and fish.

The First Half of the 20th Century

Certain territories were also set aside as game preserves by the Game Protection Acts of 1911 through 1926. No person was allowed to chase, harass, pursue, hunt, shoot at, trap, take, wound, kill, capture or destroy any of the animals or birds within these areas.

In 1930 The Manitoba Game and Fisheries Act established certain areas as provincial game reserves or bird sanctuaries within which no hunting of game was allowed. This Act also made provisions which prohibited anyone from erecting a structure upon land not legally owned or lawfully occupied. Portions of land were also designated as registered trapline districts, or as fur rehabilitation blocks which prohibited trapping or trespassing without a permit. The Lieutenant-Governor-in-Council could also set aside and reserve areas as public shooting grounds.

Despite the provisions made by the Dominion Government to protect wildlife in the western provinces, Alberta, Saskatchewan and Manitoba were dissatisfied with the arrangement whereby they had no control over Crown Lands. In 1930 an agreement was drawn up between the Dominion of Canada and the Provinces of Alberta, Saskatchewan, and Manitoba, which provided for the transfer of Crown Lands and the accompanying responsibilities to the individual provinces. This agreement is the framework of The Manitoba Natural Resources Act, which states:

> In order that the Province may be in the same position as the original Provinces of Confederation...of The British North America Act, 1867, the interest of the Crown in all Crown lands, mines, minerals (precious and base) and royalties derived there from within the Province...(c. 30, s. 1, p. 231).

It also states that:

> The Province will further continue and preserve as such the bird sanctuaries and public shooting grounds which have been already established and will set aside such additional bird sanctuaries and public shooting grounds as may hereafter be established by agreement between the minister of the Interior and the minister of Mines and Natural Resources...(c. 30, s.19, p. 234)

The Province, in other words, was obliged to keep and could not dispose of its bird sanctuaries or public shooting grounds. Saskatchewan and Alberta have not retained their public shooting grounds but allowed them to be sold or disposed of for agricultural purposes (Jones, Personal Communication). This has raised some doubts as to the validity of the Natural Resources Transfer Act. According to Banks (1980), an act comes into effect as soon as it receives royal assent, unless the act itself specifies a different date or states that it will not come into force until proclaimed. The Manitoba Natural Resources Act specifies that the Act comes into force on the 15th day of July, 1930, provided His Majesty has given His Assent to an Act of the Parliament of the United Kingdom of Great Britain and Northern Ireland confirming the same. This was done in the amendment to the British North America Act on July 10th, 1930, to confirm and give effect to certain agreements between the Dominion of Canada and the Governments of the Provinces of Manitoba, British Columbia, Alberta and Saskatchewan. The Natural Resources Act of 1938 ratifies and confirms the Natural Resources Transfer Agreement by stating that it was approved bv the Parliament of Canada and the Legislature of the Province, and upon address to His Majesty from the Senate and House fo Commons of Canada, was confirmed and declared to have the force of law by the amendment to The British North America act, 1930. The Provincial Lands Act (1930) and the Crown Lands Act (1934) were also assented to at this time. These two acts provided for the establishment of the Lands Branch and control and management of Crown Lands by the Minister. The Lieutenant-Governor-in-Council may exchange Crown Land for other lands in the province, set aside Crown Land for use as provincial parks, forest and game reserves, bird sanctuaries, public shooting grounds, public resorts or for similar public purposes. He may also withdraw Crown lands from disposition (Crown Lands Act, 1934). Any of the above procedures require an Order-in-Council to be issued, as does the addition or deletion of lands to certain established areas.

Wildlife Legislation Today

The most recent act of Legislature which holds significance to wildlife, is the Wildlife Act (1980), which repealed the 1963 Act. This Act allows, by regulation, the Lieutenant Governor to designate Wildlife Management Areas and Public Shooting Grounds on Crown Lands. It also allows the government to purchase, expropriate, acquire, or exchange any lands required for the above purposes. This Act also authorized the designation and regulation of land other than Crown Land or a combination of Crown and other lands as; an Animal Control Area, Endangered Species Area, Furbearing Refuge, Managed Hunting Area, Waterfowl Control Area or a Wildlife Refuge.

One can see that legislation plays an important role in the control and management of the land and its uses. The legal proceedings of the government are necessary and are the only method of ensuring that Crown Lands will be put to proper use and not exploited.

CHAPTER 4
CHANGES IN MANITOBA'S CROWN LANDS FOR WILDLIFE

Introduction

The classification and management of Crown Lands for wildlife use in Manitoba has undergone an evolutionary change in the past century. The first half of the century saw the establishment of preserves and sanctuaries under the Game Protection Act. As time has passed, a greater understanding and knowledge of wildlife management techniques resulted in the concept of the more efficient Wildlife Management Area.

Administration of Wildlife Lands in Manitoba

The classification and allocation of Crown Lands for wildlife purposes, however, may often be a slow and involved process. It begins when recommendations are forwarded by a committee or regional specialist, reviewed by the Department and finally put through the grinding wheels of legislation and established as a specifically designated area, by Order-in-Council.

In Argo-Manitoba, the southern more reproductive region of the Province, the responsibility for classifying Crown Land use is placed with the Crown Land Classification Committee (CLCC), which is an interdepartmental working group (CLCC, 1982). This committee was established in 1975 in response to conflicts concerning the allocation of Crown Lands (Ward, 1977). The Committee consists of 2 members each from the Dept. of Natural Resources, Agriculture and one person from the Dept. of Municipal Affairs. The inclusion of this last department ensures a close relationship with the Provincial Planning Act. Specific aims include policy recommendations and the solving of land use conflicts.

The Province has been divided into five regions by the Dept. of Agriculture and four regions by the Dept. of Natural Resources. In each region, a Bio Planning Committee has been employed to carry on field activities and studies which may then supply information for reports prepared by the CLCC. The CLCC reports to a Cabinet Committee, Provincial Land Use Committee, who also directs them.

The classification process is not static but is constantly being reviewed and updated to meet the changing needs and uses of the land. It involves the assembly of classification maps of each municipality known as the Operational Crown Lands Plans, which are then used to administer and guide the use of Crown Lands, once they have received approval by the CLCC. A special coding system is used in the preparation of the Operational Crown Land Plans, known as the Crown Land operations classification system. The system allows the addition of new codes, if required. It has assigned a specific code to each land use type, for instance, Forest Management or Outdoor Recreation, to name but two. The wildlife code is the letter "C" and a number affixed to the letter indicates the activities which may occur on that area of land, e.g.

No Agricultural Use	No Development-Yearly Use Only				No Development-Yearly Use Only			
					Dept. Nat. Rec. Manager Approval Required			
	Hay	Grazing	Hay/ Grazing	Cultivation	Hay	Grazing	H/G	Cultivation
C1	C2	C3	C4	C5	C6	C7	C8	C9

(Taken from Crown land Classification Committee, 1982)

The C6 to C9 coded areas of land require the specific approval of the regional specialist, manager or biologist involved before any action concerning the land may take place.

Crown Lands coded to wildlife are important as habitat and are to remain as they occur in nature and therefore kept from development and long term commitment (CLCC, 1982). However, areas may exist which have a "nonconforming use" classification. This implies that a use (such as a life-time lease considered to be short term) may exist but is inappropriate in the long term context. Therefore, if feasible, a change should be made.

The areas for each municipality are coded for best use and in this way planning can take place for the most efficient and least conflicting utilization of Crown Lands.

The new Planning Act allows the local governments to become more involved in decisions concerning land use. The CLCC will therefore work more closely with the Dept. of Municipal Affairs and with the Provincial Land Use Committee (Ward, 1977).

Government Policies in the Seventies

Aside from establishing CLCC, the Provincial Government of the seventies introduced another innovation, which was their "Guidelines" policies ("Guidelines For the Seventies", 1973). Wildlife policies in the Guidelines focused on non-consumptive uses (such as forest extraction, hay removal and hunting) were planned with non-consumptive uses such as nature interpretation, tours, picnics and camping to be encouraged instead (Ward, 1977). There now was an emphasis on multiple resource uses, such as wildlife preservation alongside the realization of the recreation potential of an area. The same area may also employ both consumptive and non-consumptive uses, especially if it provides local employment. For instance, a Wildlife Management Area could be used for harvesting as well as recreational uses such as interpretation and camping (Ward, 1977). We must be cautious, however, for so-called non-consumptive uses of wildlife may, in fact, impair wildlife habitat and thus ultimately destroy the wildlife itself.

Another program during the 70's which is no longer in existence is the Resources For Tomorrow-Land Access Program. This project was oriented to the problem of wildlife habitat destruction on private lands resulting in a reduction of wildlife populations. Since the majority of wildlife production is on private land, this is a major problem. The program's objective was to provide access to important natural resource areas through a policy of land acquisition (Ward, 1977). Actual acquisition was made by the Attorney General. Outside of this program, land acquisition, disposition or exchange concerning Wildlife Management Areas, Public Shooting Grounds or Refuges, had to be implemented via the Provincial Order-in-Council.

Guidelines For the Seventies, 1973, also divided regions of northern Manitoba into priority use areas for planning and management purposes. Priority uses are those which appear to have this highest potential in the area. An area that is designated with a specific priority use may still have other activities taking place on it as long as the

secondary use does not detract from the prime use. Priority use areas include intensive and extensive recreation, forestry, fish and wildlife areas, as well as environmental reserves, specific environmental reserves, specific environmental areas, agricultural areas and modified waterways. An intensive fish and wildlife area has a high potential for sport fishing and hunting but limited potential for other major resource uses. The extensive fish and wildlife areas have potential for quality sport fishing and hunting as well as commercial fishing and trapping. Since insufficient information existed on the other resources in the area, research is required before any development of the other resources could take place.

Land Disposition

Policies and management of Crown Lands have been discussed but an even more revealing aspect which reflects the government's attitude is the actual amount of land and the number of areas actually designated by Order-in-Council to Wildlife use. Since the Province did not have jurisdication of Crown Lands until 1930, the majority of Public Shooting Grounds were established in Privy Council Orders by the Dominion of Canada. The game preserves and bird sanctuaries, however, were established under the Game Protection Act of Manitoba. The first game preserve was established in 1911 (Game Protection Act, 1911), and by 1940 a good number had been founded (see Appendix A for information on Game Preserves). The game preserves were divided into six major classes which all had specific restrictions pertaining to the individual classes.

The 1950's heralded in a new era, with a new concept toward wildlife management. The preserves and sanctuaries were all replaced by Refuges or Wildlife Management Areas (Wildlife Act, 1963).

Table 7 illustrates the commitment of lands to Wildlife Management Areas since 1961. However this does not represent the total acreage of land committed to wildlife use since Refuges and Public Shooting Grounds were also established. Of the 8 Public Shooting Grounds in Manitoba, six were established by the Federal government in 1925 while the Provincial government established one in 1935 and another in 1957. No other Public Shooting Grounds have since been designated (Manitoba Department of Natural Resources, Manitoba Wildlife Fact Book, 1980).

Table 7 Yearly Designations of Wildlife Management Areas

Year	Acreage	Number
1961 - 1962	6,080	1
1963 - 1964	244,800	1
1965	792,551	3
1966	837,167	3
1967	835,151.5	1
1968	958,167.5	2
1969 - 1970	1,100,840	12
1971	1,104,840	1
1972	1,127,982	1
1973	3,575,464	2
1974	3,684,096.3	1
1975	3,575,154	13
1976 - 1977	3,707,389.3	7
1978	3,507,389.3	1
1979 - 1980	-	1
		50

Source: Manitoba Department of Natural Resources, Manitoba Wildlife Lands Book, 1980.

The first Game Preserve was created in 1911. The status of many of these areas was later changed to refuges. Five Wildlife Refuges were established in 1963, as well as two Fur Bearing Animal Refuges and eleven Game Bird Refuges. Nine more Game Bird Refuges were designated in 1966. The Turtle Mountain Fur Bearing Animal Refuge was repealed in 1979 and no loner exists. The St. Charles Wildlife Refuge, Fort Whyte, and Pt. Du Bois Game Bird Refuges were also repealed in 1982. These refuges were all in close proximity to urban centres and were no longer required due to firearm legislation (Larch, Personal Communication). There are a number of refuges which are of questionable value and should be considered for review.

There is at present a proposal to establish a new Wildlife Management Area as well as enlarging existing ones. This is still in the tentative stages and must receive Order-in-Council before it becomes legal (Westhorpe, Personal Communication).

The disposition of lands for wildlife use should be constantly reviewed and up-dated. Efficient land management requires that those lands not fulfilling their intended purpose be used in better ways. This may include acquisition of poor agricultureal lands for wildlife or perhaps the closing of a refuge that is no longer viable, due to the lack of wildlife utilization.

CHAPTER 5
PROBLEMS IN MANITOBA'S CROWN LANDS FOR WILDLIFE

Wildlife Habitat in Manitoba

Manitoba is divided into six major vegetative zones, the Aspen Parkland, Grassland, Boreal Forest, Lichen and Hudson Bay Lowlands and the Northern Tundra. The northern regions of the Province contains a diverse amount of wildlife including furbearers, big game, waterfowl and fish. Reptiles, amphibians, and invertebrate life also exist throught the Province. Manitoba is especially noted for its abundance of marshlands which predominant in Agro-Manitoba; the Aspen Parkland and Grassland zones. These lands are important for the habitat they provide to migratory birds and furbearers, e.g. muskrat. The Delta Marsh is world famous and widely studied for its complex eco-system and the abundance of life that it provides for. Other areas utilized by migratory birds include the tundra zone which is unique to Manitoba, the islands, bays and shores of Lakes Winnipeg, Manitoba and Hudson Bay,and the complex river and wetland systems.

Loss of Habitat

Crown Lands may be designated as Wildlife Management Areas, Public Shooting Grounds and Refuges. However, the area must be good wildlife habitat to begin with or have the potential to be developed as such if it is to serve the purpose of its designation. Unfortunately there is a danger of much of this excellent habitat being lost. This is the limiting factor in maintaining existing population levels of waterfowl. In many cases the land may also serve other purposes. It is one resource with many uses. This may lead to conflict. As well as being good for supporting wildlife, the same land may also be sought for purposes of agriculture, recreation, mining and forestry. Cooperative management by various agencies and groups must be assumed if our natural resources are to be fully realized and preserved. It is not enough to designate land for wildlife purposes and not manage it as such, assuming that nature will take care of her own. Rapid encroachment of other land use activities is resulting in a serious problem of habitat loss. If there is no habitat, there can be no production of wildlife populations. Industrialization, hydro and pipeline development in northern Manitoba are potential

threats to production, moulting and staging habitats of migratory birds which exist in the Boreal Forest (Habitat Management Section, 1979). In the southern regions the prairie potholes, important sources of habitat, are being eroded by intensified agricultural activities, which in turn is resulting in a gradual decline of the dependent migratory birds. Yet it is these areas that contain the highest total rating for waterfowl production by the Habitat Management Section (1979), with Delta Marsh and Dog Lake in the Aspen Parkland and Riverton-Hecla Marsh in the Boreal Forest region.

The Uses of Crown Lands For Wildlife and Resultant Conflicts

Since Public Shooting Grounds were established to provide access to hunters and Refuges were established to prohibit hunting, other activities may co-exist with the wildlife living on these areas as long as no conflict results against the original intended purposes. Therefore, as long as haying or grazing does not impede the prohibition of hunting on a Refuge, it may be allowed. Many refuges are established to provide an area for the wildlife to produce on, although this would not be stated in the legislation. When this is the case, other activities that destroy habitat do result in conflict.

Some of the major activities that occur on many potentially good wildlife lands are mining, forestry, hydro diversion, educational activities such as ecology and naturalist tours, commercial fishing and trapping, recreation such as hunting and camping, and of course agriculture. Many of these uses may not occur on the Crown lands, but on private land where they may still affect the habitat on Crown lands or directly come into conflict. For instance Public Shooting Grounds may be surrounded by private land to which the owner will prohibit access. This is in opposition with the purpose of the Public Shooting Ground and is defeating its use as one.

The northern regions of the province hold vast lands of wildlife habitat including the fragile ecosystem of the tundra. Hunting and trapping are the main industries with very little agricultural activity taking place. Unfortunately the hunger for electricity has resulted in a major dilemna known as the Hydro Churchill River Diversion Project. Extensive flooding has occured on lands from South Indian Lake to Thompson and Split Lake. Much wildlife habitat has been destroyed by the killing of trees and the elimination of aquatic vegetation. It is true that good aquatic habitat will be created for furbearers but this will not occur for perhaps another hundred years. Hydro diver-

sion is a fairly recent development with the effects on wildlife just beginning to be studied and therefore little information is known, (Kearney, Personal Communications). This project has also had an adverse impact on the fishing and trapping industries which are being compensated for.

The interlake region contains 22 Wildlife Management Areas along with a number of Public Shooting Grounds and Refuges. Although there is a greater amount of agricultural activity here than in the more northern areas, pressure for agricultural lands is not quite as high as it is to the south. The mining industry is rather extensive in this region, especially with respect to quarry and gravel digging. This has resulted in changing much of the habitat and consequent reduction of wildlife, (Cameron, Personal Communications). Mining may occur on the Wildlife Management Areas. If the demand is great for the particular product it is often difficult to prevent this activity, even if the results are detrimental to the area's wildlife.

Another activity which has been detrimental in the past to the alteration of wildlife habitat is Forestry (Cameron, Personal Communications). Large clear cuts of forest in a short period of time results in much habitat loss. A cutover of a reasonable size can be very good for certain species e.g. moose. Care must be taken not only in regards to size but also the shape and timing of cutting. Forestry in Wildlife Management Areas is directed by the Wildlife Branch. The key is co-operation between the two government branches which may then allow forestry to enhance rather than destroy the wildlife.

The southern region known as Agro-Manitoba has the highest capability for agricultural lands as well as containing some of the most important marsh waterfowl habitats. The limitation of acreage in the region has created a great demand and pressure by the ever growing agricultural industry to use more land. Much of the Crown lands here are leased out to farmers who then cultivate, graze, and hay, and are possibly destroying habitat. Conflict also occurs between the farmers of land adjacent to hunting areas and the hunters. Public Shooting Grounds may also be located near a camping area or beach. This may prove unsafe from the recreationalists point of view. This may result in the creation of a wildlife refuge in the vicinity so that hunting is prohibited, to protect the camper rather than the wildlife. This refuge, in turn may be used for agricultural purposes causing further conflict. Often when multiuses of an

area results in severe problems of this nature the solution is establishment of a Wildlife Management Area. This allows control of all activities with wildlife hopefully as the prime user. One must keep in mind that an area may be designated as such for an obvious or stated reason which may not coincide with the real purpose, especially in the case of refuges. Tables 8 to 10 describe the purposes and current uses of Wildlife Management Areas, Public Shooting Grounds and Refuges. The major uses of these are public hunting and haying through permit. The purpose of most Wildlife Management Areas are to preserve the wildlife habitat, while refuges were established to protect wildlife. The main purpose of the Public Shooting Ground is to provide an area for public hunting. All types of designations have some amount of agricultural activity allowed, as well as trapping. In many cases it is questionable as to whether the uses of the area are compatable with the purpose.

Problems Facing the Marshlands

Let us examine some of the more important marshlands where these conflicts are taking place. It is important to know the factors that contribute to the marsh environment. Prairie marshes have evolved under dynamic water level changes. In the natural course of geological history Lake Manitoba and Winnipegosis will become smaller and shallower. At present they may simply be considered as puddles in the bottom of glacial Lake Agassiz. Evidence suggests that long term decline of Lake Manitoba and its border marshes is taking place. The ancient beach line on Delta Marsh, for instance, is higher than it was in 1963 (Hochbaum and Ward, 1964). It would not be unrealistic to suggest that one day, not in our time of course, Lake Manitoba itself will just be a marsh.

The marsh is productive and survives due to the instability of its water levels. There is a rapid rate of energy fixation and many complex linakges make it more stable than, for example, arctic ecosystems which have slow energy fixation and few subsystem linkages (RPC, 1975).

Table 8 Functional Description of Wildlife Management Areas

Wildlife Management Area	Purpose	Current Use
1. Basket Lake	Preserve Wildlife Habitat	Public hunting, hay permits
2. Bernice	Re-establish sharp-tailed Grouse.	Public hunting, hay permits
3. Brandon Hills	Management of White-tailed Deer	Public hunting & recreation cash-rent lease
4. Broad Valley	Preserve Wildlife Habitat	Public hunting, hay permits
5. Broomhill	Management of Sharp-tailed Grouse	Public hunting
6. Cape Churchill	Habitat for Polar Bears, Caribou and Geese	-
7. Cape Tatnum	Protect Fragile coastal tundra ecosystem	Public hunting and viewing, trapping
8. Clematis	Preserve habitat and staging area for wildlife	Public hunting, hay permits grazing lease
9. C. Stuart Stevenson	Preserve Wildlife Habitat	Public hunting, hay permits
10. Dog Lake	Nesting & Resting Water-fowl Area	Public hunting
11. Gerald W. Malaher	Provide Food & cover for pheasants	Public hunting, hay permits
12. Grahamdale	Preserve Wildlife Habitat	Public hunting
13. Grant's Lake	Increase Departmental Control Over Area	Waterfowl Viewing
14. Gypsumville	Preserve Wildlife Habitat	Public Hunting
15. Harperville	Grouse and Deer Habitat	Public Hunting
16. Hilbre	Grouse and Deer Habitat	Public Hunting, hay leases
17. Inwood	Grouse and Deer Habitat	Public Hunting, hay permits
18. Langruth	Deer, Grouse & Waterfowl Habitat	Public Hunting, timber and hay permits

19.	Lauder Sandhills	Wintering Area for White-tailed Deer	Bee & hay permits, grazing lease, public hunting
20.	Lee Lake	Mountain Waterfowl Resting Area	Public Hunting
21.	Little Birch	Deer, elk and staging	Public hunting, hay leases
22.	Lundar	Preserve Deer & staging habitat	Public hunting, hay permits
23.	Mantagao Lake	Preserve Deer, Elk & Moose habitat	Public hunting, sport fishing timber cutting, trapping, hay permits, cabin & picnic areas
24.	McCreary	Prevent loss of Wildlife habitat & public hunting lands in a region with large proportion of private lands	Public hunting, trapping, hay permits, Seneca Root production
25.	Moosehorn	Giant Canada Goose Breeding	Public hunting, hay permit, regulated Agricultural Use
26.	Narcisse	Preserve Winter habitat for deer and grouse	Public hunting, Wildlife Research Area
27.	Oak Hammock Marsh	Increase Waterfowl Production and Preserve Deteriorating Marsh Land	Nature Interpretation, Kennel Club and Gun Dog Assoc. Field trails, Scientific/Educational Studies
28.	Onanole	Preserve Wildlife habitat	Public hunting
29.	Parkland	Preserve & Maintain Wildlife habitat	Public hunting, grazing lease, hay permit
30.	Pembina Valley	Preserve & Maintain Wildlife habitat	Public hunting, hay permit, miscellaneous leases
31.	Peonan Point	Ensure Food Cover for Game	Public hunting, hay permits
32.	Pierson	Wintering Area for White-tailed Deer	Public hunting, hay permits
33.	Proulx Lake	Preserve Wildlife Habitat	Public hunting, hay permits
34.	Rembrandt	Deer and Grouse Habitat	Public hunting, recreation
35.	Sandridge	Increase numbers of White-tailed Deer in Area	Public hunting, hay permits

36.	Saskeram	Prevent over hunting & encroachment by Farms	Public hunting, muskrat trapping grazing & hay leases
37.	Sharpewood	Preserve & Improve Deer Habitat	Public hunting
38.	Sleeve Lake	Maintain Deer, Moose, Elk & Grouse Habitat	Public hunting, trapping
39.	Souris River Bend	Improve winter habitat for Deer	Public hunting, renewable hay permits, Cash-grant agricultural lease
40.	St. Malo	-	-
41.	Steeprock	Preserve Fur Bearing Animal Habitat	Public hunting
42.	Tiger Hills	White-tailed Deer Protectection	Public hunting
43.	Tom Lamb	Habitat For Waterfowl & Aquatic Life	Public hunting, trapping, engineering studies
44.	Turtle Mountain	Preserve Wildlife Habitat	Public hunting
45.	Upper Assiniboine	Preserve Wildlife Habitat	Public hunting, hay permits
46.	Watson P. Davidson	Maintain high quality deer habitat	Public hunting, trapping, Experimental habitat manipulation
47.	Whitemud Watershed	Upland Game Bird and White-tailed Deer Protection	Public hunting, renewable hay permits
48.	Whitewater Lake	Provide a means of controlling use of boards on lake & preventing waterfowl harassment	Public hunting

Source: Manitoba Department of Natural Resources. Manitoba Wildlife Lands Book, 1980

Table 9 Functional Description of Public Shooting Grounds

	Public Shooting Ground	Purpose	Current Use
	Southwest Region		
1.	Oak Lake	Public Hunting	Public hunting, hay and grazing permits
2.	Pelican Lake	Public Hunting	Public hunting
3.	Whitewater Lake	Public Hunting	Public hunting, hay and grazing permits
	Red River Region		
4.	Delta	Public Hunting	Public hunting, special hay permits, grazing permits
5.	Marshy Point	Public Hunting	Public hunting, haying and limited grazing permits
6.	Netley	Public Hunting	Public hunting, hay and grazing permits
	West Lake Region		
7.	Big Point	Public Hunting and Recreation	Public hunting and hay and grazing permits
8.	Waterhen	Public Hunting	Public hunting and hay and grazing permits

Source: Manitoba Department of Natural Resources. Manitoba Wildlife Land Book, 1980.

Table 10 Functional Description of Refuges

	Wildlife Refuse	Purpose	Current Use
	Southwest Region		
1.	Carman *	Wildlife Protection and Conservation Education	Wildlife Refuge
2.	Minnedosa Lake *	Bird Sanctuary (error in classification, originally intended as Game Bird Refuge	Wildlife Refuge and staging area for Waterfowl
3.	Spruce Woods	Deer and Elk refuge (not part of need)	Wildlife Refuge, Provincial Forest and deer surveys
	Red River		
4.	Birdshill *	Wildlife Protection, Firearm Control	Wildlife Refuge
5.	St. Charles	Wildlife Protection by local resident request; discontinued due to city Firearm regulations	Wildlife Refuge, deer viewing area, residential area
	Fur Bearing Animal Refuge		
	Southwest		
6.	Turtle Mountain *	Protection and control of Animal Population by regulating trapping	FBAR, hunting, trapping by Special Permit, animal surveys
	Southeast		
7.	Red Pine *	Protect red squirrels which aid in reforestation by cutting red pine seed	FBAR, public hunting
	Game Bird Refuge		
	Southwest		
8.	Oak Lake	Improve waterfowl production and provide a nesting area	Game Bird Refuge

		Also established the Oak Lake Special Canada Goose Refuge but this failed	
9.	Rock Lake	Waterfowl Protection and Resting place formigration waterfowl	Game Bird Refuge, also starting to get used by geese
	Red River		
10.	Delta	Protect vacation cottages and waterfowl, prevent indiscriminate firearm use	Game Bird Refuge and Waterfowl Research Station, University of Manitoba Field Station
11.	Fort Whyte	Protect gamebirds and control firearms	Game Bird Refuge - Discontinued
12.	Grant's Lake	Waterfowl Protection	Game Bird Refuge and Waterfowl viewing, also special hay permits
13.	Lynch Point	Wildlife Protection and camping area	Game Bird Refuge and public recreatin area
14.	Marshy Point (also a Goose Refuge)	Staging and Protection of Waterfowl	Game Bird Refuge
15.	Netley Marsh *	Improve hunting in surrounding Public Shooting Ground	Game Bird Refuge
16.	St. Ambroise	Preserve waterfowl	Game Bird Refuge and bird watching site, recreation area with campground and cottages
17.	West Shoal Lake	Protect Migratory Waterfowl	Game Bird Refuge & bird-watching grazing and permits
	Southeast		
18.	Jackfish Lake	Refuge for Migrating Geese to provide for hunting in surrounding land	Game Bird Refuge, Big Game hunting and trapping
19.	Point du Bois	Protect Breeding Flock of Geese - Failed and Discontinued	Game Bird Refuge, winter moose surveys, Big Game hunting

20.	Whiteshell (includes Alfred A. Hole Goose Sanctuary)	Protect Wildlife in a Public Recreation Area, Firearms prohibited to protect campers	Provincial Park and Forest, Game Bird Refuge but birds do not get much use out of it
	Interlake		
21.	Dog Lake Islands	Protect Geese and White Pelicans, provide a nesting & resting area	Game Bird Refuge with resting and nesting areas and waterfowl viewing area
22.	Lee Lake	Protect breeding Flock of Canada Geese	Game Bird Refuge
23.	Reyjavik	Protect nesting population of Canada Geese	Game Bird Refuge
24.	Sleeve Lake	Increase waterfowl use during hunting season	Game Bird Refuge
	Westlake		
25.	Big Grass Marsh	preserve Waterfowl and provide staging area for them	Game Bird Refuge and Muskrat Trapping
26.	Red Deer Point *	Originally intended as a Moose Sanctuary since Big Game were being exterminated in the area	Game Bird Refuge, trapping and Big Game hunting
	Porcupine		
27.	Swan Lake	Protect nesting geese and build up a better flock	Game Bird Refuge

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FBAR - Fur Bearing Animal Refuge

* Designated Area of Questionable value since purpose does not necessarily coincide with its use.

Source: Manitoba Department of Natural Resources. Manitoba Wildlife Lands Book, 1980; and Larche, Personal Communication.

Periodic fluctuations are important for maintaining marsh plant communities at the early successional stages which are productive for waterfowl. Periodicity is needed to kill back rank growth and allow the establishment of early serial communities. Intermittent dry periods allow decomposition of dead marsh vegetation and subsequent nutrient recycling as well as establishing new vegetative growth (RPC, 1975). The conditions following periodic droughts are the most productive for wildlife, according to Hochbaum and Ward (1964). However if these conditions remain stable, the edges of the marsh would gradually invade the middle and there would be nothing but Phragmites or reed grass. These sterile beds of Phragmites are the remnants of dead marshes which may be found in the pothole district of the province (Hochbaum and Ward, 1964).

Since wetland and upland cover serve as nesting and feeding areas for waterfowl and the broods they fledge, it is essential that they be developed and maintained (Jones, Personal Communication). However the presence of wetlands alone does not assure waterfowl production unless sufficient dry grassland is available for nesting. For this reason, tame and wild forage crops must be left undisturbed for 2 or 3 years. They become less valuable if left completely undisturbed due to an increase in the density of grasses and shrub cover. This is when mowing and burning can be used to bring back optimal conditions, but these techniques must be under strict supervision and control (Jones, Personal Communication).

The aim of marsh management then, is to control fluctuations in water level so that the dangers of extreme highs and lows at inappropriate seasons may be avoided. These extreme and irregular fluctuations are significant factors in preventing the development of waterfowl feeding grounds. One example is that a rapid rise in water levels influences ducks such as the redheads and canvasbacks to add material to their nests making them unstable by toppling over and spilling the eggs when the water recedes (Technical Committee For the Development of Delta Marsh, 1968).

Physical processes such as wave action and siltation are affected by control of water levels, as well as a direct effect upon the dependent subsystems of the marsh ecosystem. Alteration of these subsystems or of the ecosystem itself may also occur through human activities such as the harvesting of trees and wildlife, altering the climate via weather modification or introducing a new species to the ecosystem (RPC,

1975). The repeated heavy use of particular sites in a marsh ecosystem may result in destruction resulting in an adverse impact to the system. This may be minimized by designing programs that allow for alternating the various uses among different sites.

The serious problem facing the southern region is the rapid reduction of important waterfowl habitat by pond drainage and land clearing associated with agricultural practices (Lake Winnipeg Marshes Working Group Report, 1977). The effect of agriculture may be felt more severely than hunting or trapping, since not only dependent factors of the ecosystem but controlling ones are altered as well. Hunting and trapping on the other hand leave the controlling factors unchanged, provided there is no species elimination. A direct influence occurs on only one of the dependent subsystems and the ultimate climax stage of succession remains unchanged. If the relative abundance of the species is changed a shift in the equilibrium of the ecosystem may take place. However return to the original state of equilibrium will result, upon removal of the disturbing influence. Disruption of plant subsystems and changes in plant succession are caused by occasional cultivation of the marsh fringes. This has less effect in the long run than introduction of a new species (RPC, 1975). Whatever the nature of the intervention that is disrupting the ecosystem is, it is important to be able to understand it if one is to properly interpret its impact on the ecosystem.

There is a conflict of authority on Crown Lands, concerning which interests should have precedent, wildlife or farming, (Hochbaum and Ward, 1964). Practices such as limited haying and grazing, when kept under control, may be very compatible with good waterfowl production. However, as is too often the case when agricultural interests take priority the pressure of the farming is great enough to severely reduce land of value to waterfowl. For instance, over-grazing, too early mowing of hay and the setting of water levels favorable to hay production may adversely affect waterfowl production. The most serious conflict occurs when periods of drought or dry years allows farming far into the marsh which is often sub-marginal in quality and is left better as marsh, (Hochbaum and Ward, 1964). Conditions over the past few years have enabled this to happen. It has resulted in giving the farmer more claim to the land which he will not want to rescind even upon the return of normal water levels. Haying, grazing, cultivation and burning are all detrimental to waterfowl production by reducing nesting cover and the hatching success for the few nests which do get established

(Jones, Personal Communication). This is not to say that these uses are completely adverse, with control and management they may be beneficial. Carefully controlled burning, if done at the proper time, is very useful in that it improves nesting habitat.

Hay is also a valuable crop of the marsh edge and with careful management of its operation it may be very compatible with duck production, (Hochbaum and Ward, 1964). If native hay cutting is done at the proper time and location it plays an important role in maintaining upland cover for nesting waterfowl. To ensure enough time for broods to be hatched and allow for plant regrowth the following spring, the Dept. of Natural Resources recommend that hay cutting be done between July 15th and August 30th (Hildebrand, 1982). It is also suggested that dense nesting cover which provides protection from predators to ground nesting ducks should not be cut if within 100 ft. of the water's edge.

Limited grazing may also be attractive to marsh management. At one time the marsh was grazed by Buffalo which prevented heavy stands of Phragmites from becoming solid. An ungrazed marsh is often unattractive to nesting ducks (Hochbaum and Ward, 1964). Grazing of cattle, implemented by the farmer, is under pressure that is far too heavy and is spoiling the marsh edge for waterfowl. However, the marsh edge may also be spoiled for waterfowl use. This is occurring during the grazing of cattle by farmers under pressure to produce maximally.

Unfortunately, a permit issued to the farmer to lease lands is accepted with the attitude of virtual ownership. In many cases recommendations towards proper control of agricultural activities is disregarded as competition for the land increases. This ultimately leads to wildlife habitat destruction.

A study on the changes of use on wetlands over the years, has shown a trend towards more intense cultivation. (Adams and Gentle, 1978) Losses of temporary wetlands, destruction of grassland and alteration of wetland marshes have contributed to a reduction in the quantity and quality of available waterfowl nesting habitat.

An area of land, 3.9 sq. km. in the Minnedosa district was found to have 57% in cultivation, 14% in pasture and 17% was idle cover, in 1949. In the Newdale Plain Area,

130.5 sq. km. of acreage had 58.6% cleared and cultivated in 1948, while in 1974 this figure had risen to 84.7% (Table 11). Rakowski, Nero and Hutchison (nd) found similar results in the Minnedosa Pothold area (see Table 12). There is a definite trend towards increased agricultural use of the land.

Rakowski, et. al. (nd), indicates that the province owns mainly low quality waterfowl production habitat in the southwest. It was found that only 0.02% of Crown owned land in this region was rated as Class 1 by the Canada Land Inventory Classification Committee (See Appendix B). They suggest that the highest quality wetlands are being destroyed and altered by the private sector while the province is retaining mostly Class 4 or 5 wetland habitat (Table 13).

Lands which are highly used for agricultural purposes are also found in the Public Shooting Grounds. These areas have been haphazardly defined in regards to boundaries and in some cases contain land which is in private ownership and therefore not legally Public Shooting Ground. Conflict often occurs between the hunter and the owner of adjacent private land who may attempt to block access to the public shooting ground (Jones, Personal Communication).

Although agricultural use is not in direct conflict with the purpose of a public shooting ground it does reduce wildlife habitat which then reduces production and quantity available for hunting.

In Manitoba, 69% of the total land area designated for Public Shooting Grounds are Class 4 or better for waterfowl capability, yet no habitat management is carried out to enhance waterfowl production (Colpitts, Pearson and Bullock, 1976). The capability for ungulate production is only 12% Class 5 or better while only 9.4% is Class 4 or better for agricultural capability. Despite this low value for agricultural capability, 53% of the land on Public Shooting Grounds were allocated to agriculture; 27.2% in haying and [illegible].9% for grazing. Only 46.9% were left as vacant or non-use lands (See Tables 14 - 16).

Table 11 Changes in Acreage of Lands Cleared and Cultivated in the Newdale Plain Area.

Year	Percentage Land Cleared & Cultivated
1948	58.6
1964	68.9
1970	82.8
1974	84.7

Source: Adams and Gentle, 1978

Table 12 Trends in Land Types of Minnedosa Pothole Area

Year	Land Type (Percentage of Area)		
	Cultivated and Cleared Land	Wood lots and Bushland	Wetland
1928 - 30	48.0	38.8	13.2
1948	58.6	30.0	11.4
1958	62.2	26.0	11.8
1964	68.9	21.4	9.7
1974	84.7	9.6	5.7

Source: Rakowski et al, n.d.

Table 13 Percentage of Crown Lands by Class Capability for Wildlife in Southwestern Manitoba

Class	Total Acreage of Class Land	Crown Land Acreage	Percentage
1	206,701	640	0.02
2	1,077,576	12,931	1.20
3	1,804,991	83,029	4.60
4	2,522,750	47,932	1.90
5	4,270,752	183,642	4.30
Total	9,882,770	328,174	12.02

Source: Rakowski et al, n.d.

Table 14 Use of Land on Public Shooting Grounds in Manitoba

Land Use on Public Shooting Grounds	Acres	Percent
Agricultural Use	58,887	53.1
1) Grazing	28,593	25.9
- grazing lease	6,834	6.2
- ranch grazing lease	20,416	18.5
- casual grazing permit/lease	1,343	1.2
2) Haying	30,294	27.2
- special hay permit	17,011	15.3
- renewable hay permit	677	0.6
- hay claim	12,456	11.2
- casual hay permit	160	0.1
Vacant Land	52,041	46.9
Total	110,428	100.0

Source: Colpitts et al., 1976

Table 15 Use of Land on Public Shooting Grounds by Class Capacity

Class	Percent Use of Land on Public Shooting Ground		
	Wildlife		Agriculture
	Waterfowl	Ungulates	
1	0	0	0.1
2	16	0	1
3	43	3	3.3
4	10	7	5
5	10	2	17
6	20	56	43
7	1	32	22
0	0	0	8.5
Total	100	100	100

Source: Colpitts et al., n.d.

Table 16 Present Use of Land as a Percentage of Wildlife-Waterfowl Capability on Public Shooting Grounds

Capability Class For Waterfowl	Land Use as a Percentage of Total Public Shooting Ground Area	
	Agriculture	Vacant
1	0	0
2	10.5	15.8
3	14.6	18.5
4	4.6	5.5
5	3.1	6.5
6	17	3.8
7	0.1	0
Total	50.1	49.9

Source: Colpitts et al. n.d.

Wildlife Management Areas are also actively utilized for agricultural purposes. Table 17 shows the amount of agricultural uses taking place on them. The Interlake has the greatest amount of farming although this is probably due to the vast size of this area, and the fact that the majority of Wildlife Management Areas are situated in this region.

Some of the most important marshland areas includes Whitewater Lake, Plum Lakes, Netley Marsh and perhaps the most utilized of all is the Delta Marsh. All have agriculture-wildlife-hunter conflicts. Problems include water level control which the farmers want for their benefit. These levels are unsuitable for wildlife habitat purposes and are often too low, resulting in outbreaks of botulism, which kills off large waterfowl populations (Jones, Personal Communication). There is also a problem of overhunting on many of the shooting grounds with hard feelings developing between farmers and negligent hunters. Indeed hunting is so popular in the Delta area that establishments such as "tin town" have erupted over the years. These little settlements of hunting lodges were originally to allow for overnight use but have grown into a profitable enterprise in some cases, with most being utilized for 2 to 3 weeks. In 1980 there were 51 shooting lodges in the province which were on Crown lands (Crown Lands Branch, Personal Communication). The existence of squatters, those who illegally settle on Crown lands, is not uncommon. Enforcement regarding them is not very strict and once caught, many are not punished but allowed to remain. It is even interesting to note that at one time an individual who had illegally built a foundation and dock was given the land rather than punished for his misdemeanor. The reason was that he had put an "investment" into the land (Westhorpe, 1973). Hopefully this attitude does not persist although it would be a cheap way of attaining land, we may also find all our Crown lands to be given away.

The Delta Marsh contains a Public Shooting Ground, 3 Game Refuges and camping and beach resort areas. Agricultural activity takes place on these Crown lands as well as on adjacent private lands. These many uses have led to confusion due to the conflicts which have arisen. As well as the previously mentioned problems concerning farmers and hunters, there is also a conflict between recreation interests such as shooting near the campground or interpretation tours which occur in areas not designed for this purpose (Jones, Personal Communication). The refuges which exist are in many

Table 17 Agricultural Uses of Wildlife Management Lands

Agricultural Use	Area (Acres)
Forage Lease	6,559
Renewable Grazing	640
Renewable Hay	39,840
Casual Hay	13,352
Cash Rental	40
Total	60,431

Source: Westhorpe, P. Personal Communication

cases not even established to protect the wildlife and their habitat but to protect campers in the area, and are of questionable value (Larche, Personal Communication, also see Table 10).

The problem of coexisting uses and the conflicts which are created may be due to bad land management over the years. Many activities may be compatable if properly controlled but priorities must be assigned. Agriculture has grown to be one of the most important industries of the province, but it must not be allowed to engulf all the lands. There is a definite need for much of the Crown Lands, especially of high wildlife capability, to be set aside for wildlife as its primary use. The acquisition of private lands for this purpose must also be given more consideration. It is our responsibility to ensure that valuable wildlife habitat is not destroyed. For if we allow the destruction of our wildlife, will not our own survival be in doubt?

CHAPTER 6
CONCLUSIONS

The Crown Lands of Manitoba are committed to wildlife via the establishment of Wildlife Management Areas, Public Shooting Grounds and Refuges. These designations have arisen in this past century in answer to the needs of those times. However, as the Province has advanced with time as regards its population and industrialization so too have the demands of today become more complex.

Therefore, it is time to look at the challenging situation and examine the question of whether legislation should be changed. (See Appendix C for relevant statutes.)

There is a real danger that our wildlife resources may be depleted in the not so distant future. Perhaps this indicates that good wildlife habitat which is set aside to be used as hunting grounds, often with damaging agricultural activities also taking place, would better serve our needs to enhance wildlife populations rather than deplete it. Perhaps it is time for the Federal and Provincial Government to sit down together and amend the Natural Resources Transfer Act, so that the phrase "to permanently reserve Public Shooting Grounds" should be obleted. Surely the maintenance and survival of our wildlife and their habitat is of higher priority than the momentary pleasure derived by those who kill wildlife for sport. The sacrifice of a few for a much greater cause is no new concept and has been practised down through the ages. It is not fair to consider only the hunter and forget that there are those who derive pleasure not from killing but from enjoying the mere presence of the wildlife species.

Many of the wildlife and fur bearing animal refuges are of questionable value. It is time to consider dropping the status of these areas altogether, if they are of no value to wildlife, of turning them into Wildlife Management Areas. The Provincial Government has been tardy too long in the matter of paying attention to the administration of Public Shooting Grounds and Refuges. It is time for them to "clean up their act"!

The Wildlife Management Area is the most efficient type of designation since it allows for close control of all activities and provides a greater protection to wildlife.

The Provincial Government should seriously consider how the situation stands in regard to these land designations. We cannot afford to waste precious lands which are important in serving wildlife. We should not bow down to the ever-increasing pressure of Agriculture, for once our wildlife is extinct, it certainly leads to the same fate for Man. Closer control and management of the land is needed. If Wildlife Management Areas are the best approaches to wildlife use and conservation, then perhaps Public Shooting Grounds and Refuges should be made obsolete. It is the public's responsibility to be aware of what is happening and to ensure that the Governments do their utmost to protect our wildlife for everyone's benefit, especially those of future generations.

REFERENCES CITED

Adams, G.D. and G.C. Gentle. 1978. Documenting a 10-year change in land use and waterfowl habitat from digitized aerial photo-maps. Prairie Migratory Bird Research Centre. Saskatoon. unpub.

Banks, M.A. 1980. Using a Law Library. 3rd ed. The Carswell Company Ltd. Toronto.

Barto, W.P. and C.G. Vogel. 1978. Argo-Manitoba Information Package. Dept. of Mines, Natural Resources and Environment. Wpg. Man.

Burke, J. 1976. Osborn's Concise Law dictionary. 6th ed. Sweet and Maxwell London.

Cameron, R. A. Regional Wildlife Specialist, MDNR, Wildlife Branch, Personal Communications, July 1982.

Colpitts, L.K., J. Pearson and D. Bulloch. 1976. An evaluation of present and potential land use of Manitoba's Public Shooting Grounds. Manitoba Dept. of Renewable Resources and Transportation Services. unpub.

Crown Lands Branch. MDNR. Personal Communication, June 1982.

Crown Land Classification Committee. 1982. Interdepartmental Operational Crown Land Plans. MDNR. unpub.

Ellis, J.H. 1969. Manitoba crown lands, their acquisition, tenure and utilization. Dept. of Mines and Natural Resources, Wpg., Man.

Foster, J. 1978. Working for wildlife. The beginning of preservation in Canada. University of Toronto Press, Toronto.

Habitat Management Section, Western & Northern Region. 1979. Migratory Bird Habitat Priorities; Prairie Provinces. Canada Wildlife Service.

Hildebrand, W. 1982. Land use conflicts in the Plum Lakes area of southern Manitoba. Practicum. Natural Resources Institute. University of Manitoba. Wpg.

Hochbaum, H.A. and P. Ward. 1964. The Delta Marsh: problems associated with its management. Planning a course for future action. unpub.

Jones, R.E. 1978. Delta Marsh Plan. Department of Northern Affairs, Renewable Resources and Transportation Services. Wpg. unpub.

Jones, R.E. Wetland Habitat Specialist, MDNR, Wildlife Branch, Personal Communications, July 1982.

Kearney, S.R. Regional Wildlife Specialist, MDNR, Wildlife Branch, Personal Communications, July 1982.

Lake Winnipeg Marshes Working Group Report. 1977. Dept. of Mines and Natural Resources. unpub.

Larche, R.A. Wildlife Programs Coordinator, MDNR, Wildlife Branch, Personal Communications, July 1982.

Manitoba Department of Natural Resources. 1978. Lands for wildlife and people. Manitoba's Wildlife Management

Manitoba Department of Natural Resources. 1980. Manitoba Wildlife Fact Book. (Compilers: T. Yake, F. Schmidt, & D. Fitzjohn). Government of Manitoba.

Manitoba Department of Natural Resources. 1980. Manitoba Wildlife Lands Book. (Compilers: P. Westhorpe, P. Page, & C. Vanderpont). Government of Manitoba.

Province of Manitoba. 1975. Disposition on Crown land. Policy and operations manual. Crown Lands. unpub.

Province of Manitoba. 1973. Guidelines for the seventies. vol. I Introduction and economic analysis.

Rakowski, P., R. W. Nero, and R.C. Hutchison. nd. Present status of waterfowl habitat in the prime duck production areas of Manitoba. unpub.

Resource Planning and Development Consultants. (RPC Ltd.) 1975. A study of potential interpretation opportunities and use at Oak Hammock and Delta Marshes. Manitoba Dept. of Renewable Resources and Transportation Services. Wpg. unpub.

Technical Committee For Development of the Delta Marsh. 1968. The Delta Marsh, its values, problems and potentials. Manitoba Dept. of Mines and Natural Resources. Wpg. unpub.

Ward, E.N. 1977. Land use programs in Canada. Environment Canada, Man.

Westhorpe, P.L. Resource Technician, MDNR, Wildlife Branch, Personal Communications, July 1982.

GOVERNMENT STATUTES and LEGISLATION

Statutes of Canada:

The British North America Act. 1867. ch. 3
(An Amendment to...). 1929-30. ch. 26.

The Manitoba Act. 1970. ch. 3

Statutes of Manitoba:

The Crown Lands Act. (An Amendment to...) 1934. ch. 7

The Game and Fisheries ACt. 1930. ch. 81

The Game Protection Act. 1911. ch. 19

The Manitoba Natural Resources Act. 1930. ch. 30

The Natural Resources Transfer Act. 1938. ch. 36

The Provincial Lands Act. 1930. ch. 32

The Provincial Park Lands Act. 1974. Manitoba Regulation 199, P. 499

The Wildlife Act. 1963. Cap. W140

The Wildlife Act. 1980. ch. 73

Privy Council Order 348, 1925

Manitoba Regulation 44, 1982

APPENDIX A: Game Preserve Regulations

The established wildlife areas in the first half of the twentieth century were known as Game Preserves in Manitoba. There were six main classes known as Schedule A to F. Each class had its own set of regulations and restrictions. Individual game preserves could also have their own set of additional restrictions. The following list describes the set of regulations for each schedule.

SCHEDULE A: Unlawful for any person:

1) to hunt game
2) to have in his possession firearms or traps of any description
3) to permit hounds or dogs to run at large

SCHEDULE B: Unlawful for any person:

1) to hunt game at any time, except ducks, geese, chicken, partridge and grouse in the open season

SCHEDULE C: Unlawful for any person:

1) to hunt big game in the odd numbered years

SCHEDULE D: Unlawful for any person:

1) to hunt game

SCHEDULE E: Unlawful for any person:

1) to hunt game birds
2) to carry firearms for such purpose

SCHEDULE F: Unlawful for any person:

1) to hunt big game or fur-bearing animals
2) to hunt game birds except ducks of any kind in the open season
3) to have firearms in his possession except for the purpose of hunting ducks
4) to have traps of any description in his possession

The following is a list of areas set aside as Provincial Game Preserves and Bird Sanctions.

			Area (sq. mi.)
SCHEDULE A:	1)	Riding Mountain National Park	
	2)	Spruce Woods	102.5
	3)	Duck Mountain	432
	4)	Pahonan Point	72
	5)	Red Deer Point	39
	6)	Dog Head Point	225
	7)	Grindstone Point	42
	8)	Lake St. Martin's	240
	9)	Reindeer Island	65
	10)	Birch Island	57
	11)	Lake Winnipegosis	587
	12)	St. Charles	12
	13)	Big Gross Marsh	71
	14)	Spruce Lake	18
	15)	Bird's Hill	3
	16)	Victoria Beach	9
	17)	Halcrow Lake	210
SCHEDULE B:	1)	The Pas	900
	2)	Assiniboine	504
	3)	Zephyr	34
SCHEDULE C:	1)	Rock Lake	234
SCHEDULE D:	1)	Hillside Beach	1
	2)	Rockwood	12
	3)	North Kildonan	1
	4)	Roseisle	36

SCHEDULE E:	1)	Sheriff Inkster	2978
	2)	West Shoal Lake	37
	3)	Shoal Lake	10
SCHEDULE F:	1)	Turtle Mountain	99.5

Taken from 1940 Map of Manitoba (Manitoba Department of Natural Resources Library, - Vertical Files)

APPENDIX B: Canada Lane Inventory Classification System

Wildlife - Waterfowl

Class 1: Lands in this class have no significant limitations to the production of waterfowl.

Class 1S: Waters in this special class are Class 1 areas that also serve as important migration stops.

Class 2: Lands in this class have very slight limitations to the production of waterfowl.

Class 2S: Waters are Class 2 areas that also serve as important migration stops.

Class 3: Lands in this class have slight limitations to waterfowl production.

Class 3S: Waters are Class 3 areas that also serve as important migration stops.

Class 3M: Lands in this special class may not be useful for waterfowl production but are important as migration or wintering areas.

Class 4: Lands in this class have moderate limitations to the production of waterfowl.

Class 5: Lands in this class have moderately severe limitations to waterfowl production.

Class 6: Lands in this class have severe limitations to waterfowl production.

Class 7: Lands in this class have such severe limitations that almost no waterfowl are produced.

Wildlife - Ungulate

Class 1: Lands in this class have no significant limitations to the production of ungulates.

Class 1W: Lands in this special class are Class 1 areas that are winter ranges on which animals from surrounding areas depend.

Class 2: Lands in this class have very slight limitations to the production of ungulates.

Class 2W: Lands in this special class are class 2 areas that are winter ranges on which animals from surrounding areas depend.

Class 3: Lands in this class have slight limitations to the production of ungulates.

Class 3W: Lands in this special class are Class 3 areas that are winter ranges on which animals from surrounding areas depend.

Class 4: Lands in this class have moderate limitations to the production of ungulates.

Class 5: Lands in this class have moderately severe limitations to the production of ungulates.

Class 6: Lands in this class have severe limitations to the production of ungulates.

Class 7: Lands in this class have limitations so severe that there is no ungulate production.

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Source: Crown Land classification Committee, 1982.

APPENDIX C: A List of Relevant Statutes Concerning Wildlife and Crown Lands

Crown Lands Act

SM 1934 Vols. I & II, 240 Geo V, Ch. 7, p. 52 S.7
- The exchnnge and purchasing of Crown Lands.
- Crown Lands are set aside for public purposes.

SM 1937 - 38 Vols. I & I 1 & 2 Geo. VI Ch. 12 p. 52 S.1
- Regulations respecting Crown lands

SM 1945 Vols. I & II 9 Geo VI Ch. 11 p. 69 S.1
- The exchange of Crown lands

SM 1947 Vols. I & II 11 Geo VI Ch. 11 p. 21 S.1
- Illegal occupation of Crown lands is prohibited

SM 1949 13 Geo VI Ch. 11 p. 22 S.2
- The exchange of Crown lands in lieu of school lands is not required when set aside as Public Shooting Ground.

RSM 1954 Vol. I A-Gold chaps 1-100 cap. 57 S.7
- Disposal of certain Crown lands.

RSM 1970 Vol. I A-Electoral Chaps. A10-E40 C.340 S.7
- Crown lands are set aside for public purposes.

SM 1977 26 Eliz. II c.57 S.10
- The Definition of "Minister" is repealed and amended.

Dominion Lands Act

SC 1907-8 Vols. I & 2 7-8 Edw VII Ch. 20 S.76

- The appropriation and withdrawal of alnds by the Governor-in-Council.

Game and Fisheries Act

SM 1930 Vols. I & II 20 Geo V Ch. 81

- The designation of game reserves, hunting in game reserves, and Public Shooting Grounds are described.

RSM 1954 Vol. I A-Gold Chaps. 1-100, Ch. 94

- The designation and regulations altering game preserves are discussed as well as hunting in game preserves. Public Shooting Grounds and bird sanctuaries are declared and lands deemed to be Crown lands.

Game Protection Act

SM 1911 I Geo. V Ch. 19 S.398

- Territories are set apart as game preserves.

RSM 1913 3 Geo V Ch. 75

- Territories are set apart as game preserves.
- Hunting on Turtle Mountain game preserve.

SM 1916 Vols. I & II 6 Geo V Ch. 44

- Territories are set apart as game preserves.

SM 1917 7 Geo V Ch. 37

- Territories are set apart and hunting provisions in game preserves are outlined.

RSM 1924 Ch. 75

- The power to set up preserves and areas that qualify as game preserves are discussed.
- Territories are set apart as game preserves and hunting regulations are described.
- Beaver dams on Crown lands.

(SM 1924) 14 Geo. V July Session 1923 and Vols. I & II 1924 Ch. 21

- Areas are set up as game preserves and hunting regulations are described.
- The power to set up preserves are outlined.

SM 1925 Vols. I & II 15 Geo. V Ch. 23 S.1

- An amendment is made to enlarge preserve No. 17.

SM 1926 Vols. I & II 16 Geo. V Ch. 13

- The power to create preserves is discussed.
- Rock Lake game preserve is extended and opened in alternate years.
- Ch. 14 S.1
- An amendment to Spruce Lake game preserve.

<u>Manitoba Act</u>

SC 1869 32-33 VCict. Res. Acts 1870 33 Vict. Ch. 3

- Ungranted land is vested in the Crown for Dominion purposes.
- The form of appointment of land grants is outlined.

<u>Manitoba Natural Resources Act</u>

SM 1930 Vols. I & II 20 Geo. V Ch. 30 S.19

[SC. 1930 20-21 Geo. V parts I-II Ch. 29]

- Preservation of bird sanctuaries and Public Shooting Grounds agreed upon.

Mines and Natural Resources Dept. Act

RSM 1970 Vol. 3 Law-Pub Chaps. L80-P300 Cap. M170 S.6

- Authority of the minister in regards to natural resources and other things belonging to the Crown.

Natural Resources Transfer (Amendment) Act

SM 1938 2 Geo VI Ch. 36

- Agreement not to alter legislation without all concerned parties' consent.

Provincial Lands Act

SM 1930 Vols. I & II 20 Geo V Ch. 32

- Set aside lands for public purposes.
- The minister is to provide a list of disposed lands
- Provincial Lands Act RSM 1913. Ch. 155 is repealed.

Territorial Lands Act

SC 1950 14 Geo VI Ch. 22 S.26

- Dominion Land Act is repealed.

Wildlife Act

SM 1963 12 Eliz. II Ch. 94 Cap. W140

- The designation and management of Wildlife management areas and Public Shooting Grounds are described.
- Acquisition procedures of lands for wildlife management areas and Public Shooting Grounds are given.

- Trapping on Fur Rehabilitation Blocks is discussed.
- Occupied Crown lands are designated.

SM 1968 17 Eliz. II Ch. 74 S.2 (An Act to Amend...)
- Public Shooting Preserve is defined.

SM 1980 29 Eliz. II Ch. 73 Cap. W140
- Areas other than and on Crown lands are designated.
- Regulations regarding joint programs for management of wildlife habitats by the Government of Canada and the Province.
- Regulations concerning Public Shooting Grounds and Wildlife Management Areas.

Canada Wildlife Act

SC 1973 - 74 21-22 Eliz. II Ch. 21 S.4
- Authority of the minister to carry out measures for the conservation of wildlife.

British North America Act SC. 1867 31 Vict. Cap. III Sc. 1930 20 & 21 Geo. V (1st Sess) C.C. 3, 29, 41

The Fisheries Act RSM 1970 Vol. 2 Electricial - Land Chaps. E50 - E70. Ch. F90

The Natural Resources Agreement Act. RSM 1970 Vol. 3 Ch. N40-60

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